

## 2. Product specification and feature

### 2.1 Product Specifications

#### 2.1.1 Product Overview

**Concept**

A4 Tandem CMFP to Maximize office Productivity

**Target**

SMB (Office Work for Heavy Color Print/Copy/Scan)

**CLX-6200ND  
CLX-6200FX,6210FX**

- 20/20ppm
- 2,400 effective output
- 360 MHz
- 128 MB
- SPL-C, PCL6/PS3
- 5.5K/5K (High)
- 250 CST, 100 MP
- Duplex
- ADF(6200FX)
- DADF(6200ND,6210FX)
- N/W

**CLX-6240FX**

- 24/24ppm
- 2,400 effective output
- 533 MHz
- 256 MB
- SPL-C, PCL6/PS3
- 5.5K/5K (High)
- 250 CST, 100 MP
- Duplex
- DADF
- N/W

## 2.1.2 Specifications

- Product Specifications are subject to change without notice. See below for product specifications.

### 2.1.2.1 General Print Engine

| Item         |               | CLX-6200ND/6200FX/6210FX                                                                     | CLX-6240FX                                                                                   |
|--------------|---------------|----------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|
| Engine Speed | Simplex       | B&W : Up to 20 ppm in A4 (21 ppm in Letter)<br>Color : Up to 20 ppm in A4 (21 ppm in Letter) | B&W : Up to 24 ppm in A4 (25 ppm in Letter)<br>Color : Up to 24 ppm in A4 (25 ppm in Letter) |
|              | Duplex        | B&W : Up to 10 ipm in A4 (10 ipm in Letter)<br>Color : Up to 10 ipm in A4 (10 ipm in Letter) | B&W : Up to 12 ipm in A4 (12 ipm in Letter)<br>Color : Up to 12 ipm in A4 (12 ipm in Letter) |
| Warmup time  |               | Less than 49 sec                                                                             | Less than 65 sec                                                                             |
| FPOT (B&W)   | From Ready    | Less than 25 sec                                                                             | Less than 19 sec                                                                             |
|              | From Idle     | Less than 65 sec                                                                             | Less than 45 sec                                                                             |
|              | From Coldboot | Less than 75 sec                                                                             | Less than 80 sec                                                                             |
| FPOT (Color) | From Ready    | Less than 25 sec                                                                             | Less than 19 sec                                                                             |
|              | From Idle     | Less than 65 sec                                                                             | Less than 45 sec                                                                             |
|              | From Coldboot | Less than 75 sec                                                                             | Less than 80 sec                                                                             |
| Resolution   | Optical       | 600 x 600 dpi                                                                                | 600 x 600 dpi                                                                                |
|              | Support       | Max : 2,400 x 600 dpi effective output<br>Default : 1200 x 600 dpi                           | Max : 2,400 x 600 dpi effective output<br>Default : 1200 x 600 dpi                           |

## 2.1.2.2 Controller &amp; S/W

| Item              |                          | CLX-6200ND/6200FX/6210FX                                                                                                                                                                                                                  | CLX-6240FX                                                                                                                                                                                                                                |
|-------------------|--------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| MPU               |                          | 360 MHz                                                                                                                                                                                                                                   | 533 MHz                                                                                                                                                                                                                                   |
| Memory            | Std.                     | 128MB                                                                                                                                                                                                                                     | 256 MB                                                                                                                                                                                                                                    |
|                   | Max.                     | 384MB                                                                                                                                                                                                                                     | 768 MB                                                                                                                                                                                                                                    |
| Memory Expansion  |                          | 1 Slot                                                                                                                                                                                                                                    | 1 Slot                                                                                                                                                                                                                                    |
| Printer Languages |                          | SPL-C, PostScript3, PCL6                                                                                                                                                                                                                  | SPL-C, PostScript3, PCL6                                                                                                                                                                                                                  |
| Fonts             |                          | 45 scalable and 1 bitmap PCL and 136 PS                                                                                                                                                                                                   | 45 scalable and 1 bitmap PCL and 136 PS                                                                                                                                                                                                   |
| Driver            | Supporting OS            | Windows 2000/XP/2003/Vista(include 64bit)                                                                                                                                                                                                 | Windows 2000/XP/2003/Vista(include 64bit)                                                                                                                                                                                                 |
|                   |                          | Various Linux OS including Red Hat 8.0~9.0, Mandrake 9.2~10.1, SuSE 8.2~9.2 and Fedora Core 1~4                                                                                                                                           | Various Linux OS including Red Hat 8.0~9.0, Mandrake 9.2~10.1, SuSE 8.2~9.2 and Fedora Core 1~4                                                                                                                                           |
|                   |                          | Mac OS X 10.3~10.4 and Universal Mac                                                                                                                                                                                                      | Mac OS X 10.3~10.4 and Universal Mac                                                                                                                                                                                                      |
|                   | Default Driver           | SPL-C (Samsung Printer Language Color)                                                                                                                                                                                                    | SPL-C (Samsung Printer Language Color)                                                                                                                                                                                                    |
|                   | Driver feature           | Watermark<br>Overlay<br>N-up printing<br>Poster printing<br>Duplex<br>Quality (Best/Normal/Draft)<br>Color mode (Color, Gray scale)<br>Copies Setting (Window Only)<br>Color spec.<br>Support Device color<br>Service homepage connection | Watermark<br>Overlay<br>N-up printing<br>Poster printing<br>Duplex<br>Quality (Best/Normal/Draft)<br>Color mode (Color, Gray scale)<br>Copies Setting (Window Only)<br>Color spec.<br>Support Device color<br>Service homepage connection |
|                   | WHQL                     | Windows 2000/XP/2003/Vista (include 64bit)                                                                                                                                                                                                | Windows 2000/XP/2003/Vista (include 64bit)                                                                                                                                                                                                |
|                   | Language Localization    | Korean, English, French, German, Italian, Spanish, Russian, Dutch, Finish, Swedish, Norwegian, Danish, S.Chinese, Polish, Hungarian, Slovenian, Romanian, Bulgarian                                                                       | Korean, English, French, German, Italian, Spanish, Russian, Dutch, Finish, Swedish, Norwegian, Danish, S.Chinese, Polish, Hungarian, Slovenian, Romanian, Bulgarian                                                                       |
| Scan driver       | TWAIN                    | Yes(Windows, Mac, Linux)                                                                                                                                                                                                                  | Yes(Windows, Mac, Linux)                                                                                                                                                                                                                  |
|                   | WIA                      | Yes(Windows only)                                                                                                                                                                                                                         | Yes(Windows only)                                                                                                                                                                                                                         |
| Application       | Network Scan (Client)    | Yes (multi-folder)                                                                                                                                                                                                                        | Yes (multi-folder)                                                                                                                                                                                                                        |
|                   | PC-FAX                   | 6200ND : N/A<br>6200FX/6210FX : Yes (Mono Send Only, included in SmarThru Office)                                                                                                                                                         | Yes (Mono Send Only, included in SmarThru Office)                                                                                                                                                                                         |
|                   | PSU/ScanToPC             | USB only                                                                                                                                                                                                                                  | USB only                                                                                                                                                                                                                                  |
|                   | Smart Panel              | Yes                                                                                                                                                                                                                                       | Yes                                                                                                                                                                                                                                       |
|                   | Network Management       | Set IP, SAWS & SWS<br>(Linux, Mac not support, SWAS 4.5 & SWS need Iexplorer 5.0 or higher)                                                                                                                                               | Set IP, SAWS & SWS<br>(Linux, Mac not support, SWAS 4.5 & SWS need Iexplorer 5.0 or higher)                                                                                                                                               |
|                   | Embedded JMS             | HDD OPTION (N/A : 6200FX)                                                                                                                                                                                                                 | Yes                                                                                                                                                                                                                                       |
|                   | SmarThru                 | SmarThru Office 1.0                                                                                                                                                                                                                       | SmarThru Office 1.0                                                                                                                                                                                                                       |
|                   | PDF Direct Print Utility | Yes                                                                                                                                                                                                                                       | Yes                                                                                                                                                                                                                                       |

| Item     |            | CLX-6200ND/6200FX/6210FX                                                                                                                                                                                                                                              | CLX-6240FX                                                                                                                                                                                                                                                            |
|----------|------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Network  | Protocol   | TCP/IP,SNMPv3,HTTP1.1, IPP                                                                                                                                                                                                                                            | TCP/IP,SNMPv3,HTTP1.1, IPP                                                                                                                                                                                                                                            |
|          | Network OS | Windows 2000/XP(32/64bit)/2003 Server(32/64bit)/Vista Server(32/64bit)<br>NetWare 5.x, 6.x<br>Mac OS X 10.3~10.4 - TCP/IP Only<br>Various Linux OS including Red Hat 8.0~9.0, Fedora Core 1~4, Mandrake 9.2~10.1, and SuSE 8.2~9.2<br>HP-UX, Solaris, SunOS, SCO UNIX | Windows 2000/XP(32/64bit)/2003 Server(32/64bit)/Vista Server(32/64bit)<br>NetWare 5.x, 6.x<br>Mac OS X 10.3~10.4 - TCP/IP Only<br>Various Linux OS including Red Hat 8.0~9.0, Fedora Core 1~4, Mandrake 9.2~10.1, and SuSE 8.2~9.2<br>HP-UX, Solaris, SunOS, SCO UNIX |
| Security |            | N/A                                                                                                                                                                                                                                                                   | N/A                                                                                                                                                                                                                                                                   |

### 2.1.2.3 Interface

| Item                     | CLX-6200ND/6200FX/6210FX                      | CLX-6240FX                                    |
|--------------------------|-----------------------------------------------|-----------------------------------------------|
| Parallel                 | N/A                                           | N/A                                           |
| USB                      | USB 2.0, USB host 2.0(Scan to USB, USB print) | USB 2.0, USB host 2.0(Scan to USB, USB print) |
| Hard Disk                | OPTION                                        | Built-in 80GB HDD                             |
| Network                  | Ethernet 10/100 Base TX                       | Ethernet 10/100 Base TX                       |
| Wireless                 | 6200FX, 6200ND : N/A<br>only 6210FX : OPTION  | OPTION                                        |
| LCD & Button             | 16 x 2 line LCD (Yellow BackLight)            | 16 x 2 line LCD (BackLight) Yellow color      |
| Foreign Device Interface | Yes (EDI)                                     | Yes (EDI)                                     |

## 2.1.2.4 Scan

| Item          |                       | CLX-6200ND/6200FX/6210FX                                                                        | CLX-6240FX                                                                                      |
|---------------|-----------------------|-------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|
| Scan method   |                       | Color CCD                                                                                       | Color CCD                                                                                       |
| Scan Speed    | Linearity, Halftone   | about 15 sec at 300dpi,USB2.0,P4 3.0GHz, 512M /Ltr                                              | about 15 sec at 300dpi,USB2.0,P4 3.0GHz, 512M /Ltr                                              |
|               | Gray                  | about 20 sec at 300dpi,USB2.0,P4 3.0GHz, 512M /Ltr                                              | about 20 sec at 300dpi,USB2.0,P4 3.0GHz, 512M /Ltr                                              |
|               | Color                 | about 30 sec at 300dpi,USB2.0,P4 3.0GHz, 512M /Ltr                                              | about 30 sec at 300dpi,USB2.0,P4 3.0GHz, 512M /Ltr                                              |
| Resolution    | Optical               | 1,200*600 dpi                                                                                   | 1,200*600 dpi                                                                                   |
|               | Enhanced              | 4,800*4,800 dpi                                                                                 | 4,800*4,800 dpi                                                                                 |
| Halftone      |                       | 256levels                                                                                       | 256levels                                                                                       |
| Scan Size     | Max. Document Width   | Max.216mm                                                                                       | Max.216mm                                                                                       |
|               | Effective Scan Width  | Max 208mm(8.2")                                                                                 | Max 208mm(8.2")                                                                                 |
|               | Max. Document Length  | Max.297mm(11.7") @platen, 356mm(14") @DADF                                                      | Max.297mm(11.7") @platen, 356mm(14") @DADF                                                      |
|               | Effective Scan Length | Max 289mm @platen, 348mm @DADF                                                                  | Max 289mm @platen, 348mm @DADF                                                                  |
| Scan Depth    | Color                 | Internal : 36 bit, External : 24bit                                                             | Internal : 36 bit, External : 24bit                                                             |
|               | Mono                  | - 1bit for Linearity & Halftone<br>- 8Bit for Gray scale                                        | - 1bit for Linearity & Halftone<br>- 8Bit for Gray scale                                        |
| Scan Function |                       | Scan to USB, SMB, FTP, Network,Email                                                            | Scan to USB, SMB, FTP, Network,Email                                                            |
| Compatibility |                       | [Windows]<br>- Windows 2000/2003/XP/Vista                                                       | [Windows]<br>- Windows 2000/2003/XP/Vista                                                       |
|               |                       | Various Linux OS including Red Hat 8.0~9.0, Mandrake 9.2~10.1, SuSE 8.2~9.2 and Fedora Core 1~4 | Various Linux OS including Red Hat 8.0~9.0, Mandrake 9.2~10.1, SuSE 8.2~9.2 and Fedora Core 1~4 |
|               |                       | Mac OS X 10.3~10.4 and Universal Mac                                                            | Mac OS X 10.3~10.4 and Universal Mac                                                            |

### 2.1.2.5 Copy

| Item                             |                        | CLX-6200ND/6200FX/6210FX                                                                                                                              | CLX-6240FX                                                                                                                                            |
|----------------------------------|------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|
| Copy Speed                       | Simplex Copy Speed(A4) | 20cpm (A4)                                                                                                                                            | 24cpm (A4)                                                                                                                                            |
|                                  | Duplex Copy Speed (A4) | 6200ND/6210FX : 6.6 image per sec<br>(about 33% of simplex) 6200FX : N/A                                                                              | 7.9 image per second (about 33% of simplex)                                                                                                           |
| FCOT (B&W)                       | From Ready             | Less than 31 sec                                                                                                                                      | Less than 24 sec                                                                                                                                      |
|                                  | From Idle              | Less than 71 sec                                                                                                                                      | Less than 50 sec                                                                                                                                      |
|                                  | From Coldboot          | Less than 78 sec                                                                                                                                      | Less than 89 sec                                                                                                                                      |
| FCOT (Color)                     | From Ready             | Less than 37 sec                                                                                                                                      | Less than 30 sec                                                                                                                                      |
|                                  | From Idle              | Less than 77 sec                                                                                                                                      | Less than 59 sec                                                                                                                                      |
|                                  | From Coldboot          | Less than 85 sec                                                                                                                                      | Less than 95 sec                                                                                                                                      |
| Zoom Range                       |                        | 25% to 400% for Platen25% to 100% for ADF                                                                                                             | 25% to 400% for Platen25% to 100% for ADF                                                                                                             |
| Multi Copy                       |                        | 1~99                                                                                                                                                  | 1~99                                                                                                                                                  |
| Original Type<br>(Mono)          | Text                   | Scan: 600x600dpi(Otical 600x300dpi) ,<br>Printing : 600x600dpi                                                                                        | Scan: 600x600dpi(Otical 600x300dpi) ,<br>Printing : 600x600dpi                                                                                        |
|                                  | Text/Photo             | Scan: 600x600dpi(Otical 600x300dpi) ,<br>Printing : 600x600dpi                                                                                        | Scan: 600x600dpi(Otical 600x300dpi) ,<br>Printing : 600x600dpi                                                                                        |
|                                  | Magazine               | Scan : 600x600dpi(Optical 600x300dpi)<br>@ ADF, Printing : 600x600dpi<br>Scan : 600x600dpi(Optical 600x600dpi)<br>@ Platen, Printing : 600x600dpi     | Scan : 600x600dpi(Optical 600x300dpi)<br>@ ADF, Printing : 600x600dpi<br>Scan : 600x600dpi(Optical 600x600dpi)<br>@ Platen, Printing : 600x600dpi     |
|                                  | Photo                  | Scan : 600x600dpi(Optical 600x300dpi)<br>@ ADF, Printing : 600x600dpi<br>Scan : 1200x1200dpi(Optical 600x600dpi)<br>@ Platen, Printing : 1200x1200dpi | Scan : 600x600dpi(Optical 600x300dpi)<br>@ ADF, Printing : 600x600dpi<br>Scan : 1200x1200dpi(Optical 600x600dpi)<br>@ Platen, Printing : 1200x1200dpi |
| Original Type<br>(Color)         | Text                   | Scan:600x600dpi(Optical 300x300dpi)<br>Printing : 600x600dpi                                                                                          | Scan:600x600dpi(Optical 300x300dpi)<br>Printing : 600x600dpi                                                                                          |
|                                  | Text/Photo             | Scan:600x600dpi(Optical 300x300dpi)<br>Printing : 600x600dpi                                                                                          | Scan:600x600dpi(Optical 300x300dpi)<br>Printing : 600x600dpi                                                                                          |
|                                  | Magazine               | Scan : 600x600dpi(Optical 600x300dpi)<br>@ ADF, Printing : 600x600dpi<br>Scan : 600x600dpi(Optical 600x600dpi)<br>@ Platen, Printing : 600x600dpi     | Scan : 600x600dpi(Optical 600x300dpi)<br>@ ADF, Printing : 600x600dpi<br>Scan : 600x600dpi(Optical 600x600dpi)<br>@ Platen, Printing : 600x600dpi     |
|                                  | Photo                  | Scan:600x600dpi(Optical 300x300dpi)<br>@ ADF, Printing : 600x600dpi<br>Scan:1200x1200dpi(Optical 300x300dpi)<br>@Platen, Printing : 1200x1200dpi      | Scan:600x600dpi(Optical 300x300dpi)<br>@ ADF, Printing : 600x600dpi<br>Scan:1200x1200dpi(Optical 300x300dpi)<br>@Platen, Printing : 1200x1200dpi      |
| Original Type                    | Factory Default        | Text/photo                                                                                                                                            | Text/photo                                                                                                                                            |
| Automatic Background Suppression |                        | Yes                                                                                                                                                   | Yes                                                                                                                                                   |
| Darkness Control                 |                        | 5 level                                                                                                                                               | 5 level                                                                                                                                               |
| Collation Copy                   |                        | Yes                                                                                                                                                   | Yes                                                                                                                                                   |

| Item         |                  | CLX-6200ND/6200FX/6210FX | CLX-6240FX        |
|--------------|------------------|--------------------------|-------------------|
| Special Copy | ID Card Copy     | Yes(Platen Only)         | Yes(Platen Only)  |
|              | Auto fit         | Yes(Platen Only)         | Yes(Platen Only)  |
|              | Margin Shift     | Yes                      | Yes               |
|              | Book Copy        | Yes                      | Yes               |
|              | Auto Suppression | Yes                      | Yes               |
|              | Covers           | No                       | No                |
|              | Transparencies   | No                       | No                |
|              | Create Booklet   | No                       | No                |
|              | N-up copy        | 2-up, 4-up               | 2-up, 4-up        |
|              | Clone            | Yes (Platen Only)        | Yes (Platen Only) |
|              | Poster           | Yes(Platen Only)         | Yes(Platen Only)  |

### 2.1.2.6 Fax

| Item                  |              | CLX-6200FX/6210FX                                                           | CLX-6240FX                                                                  |
|-----------------------|--------------|-----------------------------------------------------------------------------|-----------------------------------------------------------------------------|
| Compatibility         |              | ITU-T G3                                                                    | ITU-T G3                                                                    |
| Communication System  |              | PSTN/PABX                                                                   | PSTN/PABX                                                                   |
| Modem Speed           |              | 33.6Kbps                                                                    | 33.6Kbps                                                                    |
| TX Speed              |              | 3.6sec (Mono/Standard/ECM-MMR, ITU-T G3 No.1 standard)                      | 3sec (Mono/Standard/ECM-MMR, ITU-T G3 No.1 standard)                        |
| Compression           |              | MH/MR/MMR/JBIG/JPEG                                                         | MH/MR/MMR/JBIG/JPEG                                                         |
| Color Fax             |              | Yes (But Memory Transmission & Any Reserved Transmission are not supported) | Yes (But Memory Transmission & Any Reserved Transmission are not supported) |
| ECM                   |              | Yes                                                                         | Yes                                                                         |
| Resolution<br>(Mono)  | Std          | 203 x 98 dpi                                                                | 203 x 98 dpi                                                                |
|                       | Fine         | 203 x 196 dpi                                                               | 203 x 196 dpi                                                               |
|                       | S.Fine       | 300 x 300 dpi                                                               | 300 x 300 dpi                                                               |
| Resolution(Color)     |              | 200 x 200 dpi                                                               | 200 x 200 dpi                                                               |
| Scan speed            |              | 3.6 sec / Letter ( Mono, scan time )                                        | 3sec / Letter ( Mono, scan time )                                           |
| Telephone<br>Features | Handset      | No                                                                          | No                                                                          |
|                       | On hook Dial | Yes                                                                         | Yes                                                                         |
|                       | Search       | Yes (Phone Book)                                                            | Yes (Phone Book)                                                            |
|                       | 1-Touch Dial | 30                                                                          | 30                                                                          |
|                       | Speed Dial   | 240 locations                                                               | 240 locations                                                               |
|                       | TAD I/F      | Yes                                                                         | Yes                                                                         |
|                       | Tone/Pulse   | Selectable in Tech Mode                                                     | Selectable in Tech Mode                                                     |
|                       | Pause        | Yes                                                                         | Yes                                                                         |
|                       | Auto Redial  | Yes                                                                         | Yes                                                                         |

| Item                                   |                          | CLX-6200ND/6200FX/6210FX                                     | CLX-6240FX                                                   |
|----------------------------------------|--------------------------|--------------------------------------------------------------|--------------------------------------------------------------|
|                                        | Last Number Redial       | Yes                                                          | Yes                                                          |
|                                        | Distinctive Ring         | Yes                                                          | Yes                                                          |
|                                        | Caller ID                | No                                                           | No                                                           |
|                                        | External Phone Interface | Yes                                                          | Yes                                                          |
| Functions                              | Mail Box                 | No                                                           | No                                                           |
|                                        | Voice Request            | No                                                           | No                                                           |
|                                        | TTI                      | Yes                                                          | Yes                                                          |
|                                        | RTI                      | Yes                                                          | Yes                                                          |
|                                        | Polling                  | No                                                           | No                                                           |
|                                        | Earth/Recall             | No                                                           | No                                                           |
|                                        | Auto Reduction           | Yes                                                          | Yes                                                          |
|                                        | SMS                      | No                                                           | No                                                           |
|                                        | RDS                      | Yes                                                          | Yes                                                          |
| Report &<br>List Print out             | Tx/Rx Journal            | Yes                                                          | Yes                                                          |
|                                        | Confirmation             | 2 types available (with Image TCR, w/o image TCR, Mono Only) | 2 types available (with Image TCR, w/o image TCR, Mono Only) |
|                                        | Auto Dial List           | Yes                                                          | Yes                                                          |
|                                        | System Data List         | List all user setting                                        | List all user setting                                        |
| Sound Control                          | Ring Volume              | Yes (Off, Low, MED, HIGH)                                    | Yes (Off, Low, MED, HIGH)                                    |
|                                        | Key Volume               | Yes (On, Off)                                                | Yes (On, Off)                                                |
|                                        | Speaker                  | Yes (On, Off,Comm)                                           | Yes (On, Off,Comm)                                           |
|                                        | Alarm Volume             | Yes (On, Off)                                                | Yes (On, Off)                                                |
| Junk Fax barrier                       |                          | Yes                                                          | Yes                                                          |
| Security Receive                       |                          | Yes                                                          | Yes                                                          |
| Fax Memory Backup                      |                          | Yes (Serial flash)                                           | Yes, Built-in HDD                                            |
| Receive Mode                           |                          | Fax, TEL, Ans/Fax                                            | Fax, TEL, Ans/Fax                                            |
| Capacity                               |                          | less than 4 MB (200 Pages) (Mono)                            | 4 MB (320 Pages) (Mono)                                      |
| Optional Memory                        |                          | No                                                           | No                                                           |
| Max locations to store to 1 Group Dial |                          | 240 locations                                                | 240 locations                                                |
| Fax Forward to FAX                     |                          | Yes (On/Off), both Sent and Received, Mono Only              | Yes (On/Off), both Sent and Received, Mono Only              |
| Fax Forward to e-mail                  |                          | Yes                                                          | Yes                                                          |
| Broadcasting                           |                          | up to 249 locations, Mono Only                               | up to 249 locations, Mono Only                               |
| Delayed fax                            |                          | Yes (Tx only, Mono Only)                                     | Yes (Tx only, Mono Only)                                     |
| Memory RX                              |                          | Yes                                                          | Yes                                                          |

### 2.1.2.7 Paper Handling

| Item                          |                 | CLX-6200ND/6200FX/6210FX                | CLX-6240FX                              |
|-------------------------------|-----------------|-----------------------------------------|-----------------------------------------|
| Standard Capa.                |                 | 250-sheet Cassette Tray, 100 MP         | 250-sheet Cassette Tray, 100 MP         |
| Max. Capa.                    |                 | 850 sheets @ 75g/ m <sup>2</sup>        | 850 sheets @ 75g/ m <sup>2</sup>        |
| Printing                      | Max. Size       | 216 X 356((8.5" x 14"))                 | 216 X 356 (8.5" x 14")                  |
|                               | Min. Size       | 76 x127mm (3" x 5")                     | 76 x127mm (3" x 5")                     |
|                               | Margin(T/B/L/R) | 4 mm, 4 mm, 4 mm, 4 mm                  | 4 mm, 4 mm, 4 mm, 4 mm                  |
| MP tray Capacity              |                 | 100 sheets @ 75g/ m <sup>2</sup>        | 100 sheets @ 75g/ m <sup>2</sup>        |
| MP tray Sensing               |                 | Empty sensingNo size sensor             | Empty sensingNo size sensor             |
| Standard Cassette Capacity    |                 | 250 sheets @ 75g/ m <sup>2</sup>        | 250 sheets @ 75g/ m <sup>2</sup>        |
| Standard Cassette Size sensor |                 | N/A                                     | N/A                                     |
| User Interface                |                 | Indicator                               | Indicator                               |
| Sensing                       |                 | Empty sensing                           | Empty sensing                           |
| SCF Cassette Capacity         |                 | 500 sheets @ 75g/ m <sup>2</sup>        | 500 sheets @ 75g/ m <sup>2</sup>        |
| SCF Cassette Size sensor      |                 | N/A                                     | N/A                                     |
| User Interface                |                 | Indicator                               | Indicator                               |
| Sensing                       |                 | Empty sensing                           | Empty sensing                           |
| Output Stacking               | FaceUp          | N/A                                     | N/A                                     |
| Capacity                      | FaceDown        | 180 sheets @ 75g/ m <sup>2</sup> in N/N | 180 sheets @ 75g/ m <sup>2</sup> in N/N |
| Output Full sensing           |                 | Yes                                     | Yes                                     |
| Finishing                     |                 | N/A                                     | N/A                                     |
| Duplex Supporting             |                 | Std.                                    | Std.                                    |
| ADF                           |                 | 6200ND/6210FX : DADF, 6200FX : ADF      | DADF                                    |
| ADF Capacity                  |                 | 50 sheets @ 75g/ m <sup>2</sup>         | 50 sheets @ 75g/ m <sup>2</sup>         |
| Weight                        |                 | 6200ND/6210FX : 8.0kg, 6200FX : 7.0Kg   | 8.0kg                                   |

## 2.1.2.8 CRU

| Item        |                | CLX-6200ND/6200FX/6210FX                                                                                                                                                                                                                                                                                                                      | CLX-6240FX                                                                                                                                                                                     |
|-------------|----------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| No. of CRUs |                | 5 (C/M/Y/K toner, PTB)<br>K toner cartridge: CLP-K660B<br>C toner cartridge: CLP-C660B<br>M toner cartridge: CLP-M660B<br>Y toner cartridge: CLP-Y660B<br>Paper Transfer Belt: CLP-T660A                                                                                                                                                      | 5 (C/M/Y/K toner, PTB)<br>K toner cartridge: CLP-K660B<br>C toner cartridge: CLP-C660B<br>M toner cartridge: CLP-M660B<br>Y toner cartridge: CLP-Y660B<br>Paper Transfer Belt: CLP-T660A       |
| Toner       | Black          | <b>■ Standard Yield</b><br>Average K Cartridge Yield 2500 standard pages<br>Declared yield value in accordance with ISO/IEC 19798:2006(E)<br><b>■ High Yield</b><br>Average K Cartridge Yield 5500 standard pages<br>Declared yield value in accordance with ISO/IEC 19798:2006(E)<br>※ Ships with Standard yield Starter toner cartridge     | <b>■ High Yield</b><br>Average K Cartridge Yield 5500 standard pages<br>Declared yield value in accordance with ISO/IEC 19798:2006(E)<br>※ Ships with Standard yield Starter toner cartridge   |
|             | Color          | <b>■ Standard Yield</b><br>Average CMY Cartridge Yield 2000 standard pages<br>Declared yield value in accordance with ISO/IEC 19798:2006(E)<br><b>■ High Yield</b><br>Average CMY Cartridge Yield 5000 standard pages<br>Declared yield value in accordance with ISO/IEC 19798:2006(E)<br>※ Ships with Standard yield Starter toner cartridge | <b>■ High Yield</b><br>Average CMY Cartridge Yield 5000 standard pages<br>Declared yield value in accordance with ISO/IEC 19798:2006(E)<br>※ Ships with Standard yield Starter toner cartridge |
|             | Life detect    | Life detect Sensor(None), Traced via software<br>90% exhausted: Low message<br>100% exhausted: Empty message                                                                                                                                                                                                                                  | Life detect Sensor(None), Traced via software<br>90% exhausted: Low message<br>100% exhausted: Empty message                                                                                   |
|             | Replace method | CRUM for appropriate installation of each cartridge3 step for install/replacing                                                                                                                                                                                                                                                               | CRUM for appropriate installation of each cartridge3 step for install/replacing                                                                                                                |
| PTB         | Yield          | 50,000 pages                                                                                                                                                                                                                                                                                                                                  | 50,000 pages                                                                                                                                                                                   |
|             | Key            | Unique, Electronic key(CRUM)                                                                                                                                                                                                                                                                                                                  | Unique, Electronic key(CRUM)                                                                                                                                                                   |
|             | Sensor         | None, that would be traced via software                                                                                                                                                                                                                                                                                                       | None, that would be traced via software                                                                                                                                                        |
|             | Replace method | 3 steps for install/replacing                                                                                                                                                                                                                                                                                                                 | 3 steps for install/replacing                                                                                                                                                                  |

### 2.1.2.9 FRU

| Item                      | Sec_Code                       | Expected Life (Pages) |
|---------------------------|--------------------------------|-----------------------|
| Fuser                     | JC96-04495A (6240FX,110V)      | 100 K                 |
|                           | JC96-04496A (6240FX,220V)      |                       |
|                           | JC96-04544A (6200 Series,110V) |                       |
|                           | JC96-04545A (6200 Series,220V) |                       |
| Pick-up Roller (Main, MP) | JC97-03132A (Main)             | 70K                   |
|                           | JC96-02686B (MP)               |                       |
| Friction Pad              | JC73-00140A (CST)              | 70K                   |
|                           | JC97-02892A(MP)                |                       |
| [DADF/ADF] Pick-up Roller | JC97-01962A (ADF)              | 80K                   |
|                           | JC97-03070A(DADF)              |                       |
| [DADF/ADF] Friction Pad   | JC97-01940B (ADF)              | 20K                   |
|                           | JC97-03069A(DADF)              |                       |

\* ADF : CLX-6200FX

\* DADF : CLX-6200ND/6210FX/6240FX

### 2.1.2.10 Reliability & Service

| Item                  |            | CLX-6200ND/6200FX/6210FX                                                                                                                                 | CLX-6240FX                                                                                                                                               |
|-----------------------|------------|----------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------|
| Printing Volume(AMPV) |            | 1,140 page ( B&W : 400 page,<br>Color : 740 pages)                                                                                                       | 1,850 page ( B&W : 740 page,<br>Color : 1,110 pages)                                                                                                     |
| Max Monthly Duty      |            | 65,000 pages                                                                                                                                             | 80,000 pages                                                                                                                                             |
| MPBF                  |            | 58,000 pages                                                                                                                                             | 58,000 pages                                                                                                                                             |
| MTTR                  |            | <30 min.                                                                                                                                                 | <30 min.                                                                                                                                                 |
| SET Life Cycle        |            | 200,000 image or 5 years whichever<br>comes first                                                                                                        | 200,000 image or 5 years whichever<br>comes first                                                                                                        |
| Real-time Clock       |            | None                                                                                                                                                     | Yes                                                                                                                                                      |
| System-record         |            | Total page count (color/mono)<br>Fuser life<br>Transfer belt life<br>Toner Life(CMYK)<br>Tray roller life<br>First operation date(Not revealed to Users) | Total page count (color/mono)<br>Fuser life<br>Transfer belt life<br>Toner Life(CMYK)<br>Tray roller life<br>First operation date(Not revealed to Users) |
| Test Print            |            | Configuration SheetDemo Sheet                                                                                                                            | Configuration SheetDemo Sheet                                                                                                                            |
| RDC                   | Comm. Mode | N/A                                                                                                                                                      | N/A                                                                                                                                                      |
|                       | Operation  | N/A                                                                                                                                                      | N/A                                                                                                                                                      |
| Temperature           | Operating  | 15~32.5 (59~90.5)                                                                                                                                        | 15~32.5 (59~90.5)                                                                                                                                        |
|                       | Storage    | -20~40(-4~104)                                                                                                                                           | -20~40(-4~104)                                                                                                                                           |
| Humidity              | Operating  | 10~80RH                                                                                                                                                  | 10~80RH                                                                                                                                                  |
|                       | Storage    | 0~95RH                                                                                                                                                   | 0~95RH                                                                                                                                                   |

## Machine Life

| CRU/FRU                       | Modes        | Life (Expected Average based on AMPV usage ratio) |         |             |            | Max. Life         |                  |
|-------------------------------|--------------|---------------------------------------------------|---------|-------------|------------|-------------------|------------------|
|                               |              | Expected Life                                     |         | Total Image | Total Page | Color only (page) | Mono only (page) |
|                               |              | pages                                             | Images  |             |            |                   |                  |
| SET                           | Mono (40%)   | 80,000                                            | 80,000  | 200,000     | 200,000    | 200,000           | 0                |
|                               | Color (60%)  | 120,000                                           | 120,000 |             |            | 0                 | 200,000          |
| Toner Cartridge (5% coverage) | Cyan         | 5,000                                             |         | 5,000       | 5,000      | 5,000             |                  |
|                               | Magenta      | 5,000                                             |         | 5,000       | 5,000      | 5,000             |                  |
|                               | Yellow       | 5,000                                             |         | 5,000       | 5,000      | 5,000             |                  |
|                               | Black        | 5,500                                             |         | 5,500       | 5,500      | 5,500             |                  |
| PTB Unit                      | Color        | 50,000                                            | 50,000  | 50,000      | 50,000     | 50,000            |                  |
|                               | Mono         | 50,000                                            | 50,000  |             |            | -                 |                  |
| Fuser Unit                    | Color        | 100,000                                           | 100,000 |             |            | 100,000           | 0                |
|                               | Mono         | 100,000                                           | 100,000 |             |            | 0                 | 100,000          |
| Friction Pad                  | Color / Mono | 70,000                                            |         |             |            | 70,000            | 70,000           |
|                               | Color / Mono | 70,000                                            |         |             |            | 70,000            | 70,000           |
| ADF & DADF pickup             | 20ppm/24ppm  | 70K/80K                                           |         |             |            | 70K/80K           | 70K/80K          |
| ADF /DADF friction Pad        | Color / Mono | 70,000                                            |         |             |            | 20,000            | 20,000           |
| Scan Assy                     | 20ppm        | 70,000                                            |         |             |            | 70,000            | 70,000           |
| Scan Assy                     | 24ppm        | 80,000                                            |         |             |            | 80,000            | 80,000           |
| ADF/DADF                      | 20ppm        | 70,000                                            | 70,000  |             |            | 70,000            | 70,000           |
| ADF/DADF                      | 24ppm        | 80,000                                            | 70,000  |             |            | 80,000            | 80,000           |

Toner Cartridge yield : Average CMY Cartridge Yield 5000 standard pages  
Average K Cartridge Yield 5500 standard pages

Declared yield value in accordance with ISO/IEC 19798

\* Scan assy life : The life is estimated based on around 30%~35% usage of total function of MF till the machine life .

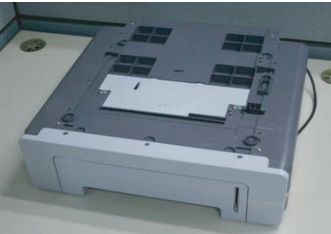
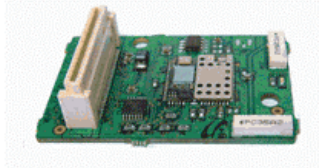
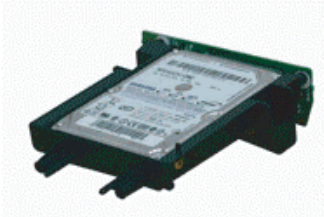
### 2.1.2.11 Environment

| Item                                       |                        | CLX-6200ND/6200FX/6210FX                                                                               | CLX-6240FX                                                                                             |
|--------------------------------------------|------------------------|--------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------|
| Acoustic Noise Level(Sound Power/Pressure) | Print & Copy           | Less than 53 dBA print @ CST<br>Less than 54 dBA copy @ CST<br>Less than 56 dBA print & copy @ SCF &MP | Less than 54 dBA print @ CST<br>Less than 55 dBA copy @ CST<br>Less than 56 dBA print & copy @ SCF, MP |
|                                            | Standby                | Less than 35 dBA                                                                                       | Less than 35 dBA                                                                                       |
|                                            | Sleep                  | Background noise level                                                                                 | Background noise level                                                                                 |
| Input Voltages                             |                        | 110-127 VAC, 50/60Hz                                                                                   | 110-127 VAC, 50/60Hz                                                                                   |
|                                            |                        | 220-240 VAC,50/60Hz                                                                                    | 220-240 VAC,50/60Hz                                                                                    |
|                                            |                        | Power Switch                                                                                           | Power Switch                                                                                           |
| Power Consumption                          | Ready                  | Less than 82W                                                                                          | Less than 82W                                                                                          |
|                                            | AVG.                   | Less than 580W                                                                                         | Less than 650W                                                                                         |
|                                            | Max/Peak               | Less than 1400W                                                                                        | Less than 1900W                                                                                        |
|                                            | Sleep                  | Less than 18W                                                                                          | Less than 28W                                                                                          |
| Dimension (W x D x H)                      | Set                    | 468 x 498 x651 mm                                                                                      | 468 x 498 x651mm                                                                                       |
|                                            | Set Packing            | 650 x 445 x 920 mm                                                                                     | 650 x 445 x 920 mm                                                                                     |
|                                            | Consumables Packing    | 620 X 430 X 325 mm (24.4" x 16.9" x 12.8")                                                             | 620 X 430 X 325 mm (24.4" x 16.9" x 12.8")                                                             |
| Weight                                     | Set (with consumables) | 37kg                                                                                                   | 37kg                                                                                                   |
|                                            | Set Packing            | 48kg                                                                                                   | 48kg                                                                                                   |
|                                            | Consumables            | 1.9kg                                                                                                  | 1.9kg                                                                                                  |
|                                            | Consumables Packing    | 8.3 Kg                                                                                                 | 8.3 Kg                                                                                                 |

### 2.1.2.12 Packing & Accessory

| Item   | CLX-6200ND/6200FX/6210FX                                                                                                                                                                                                                            | CLX-6240FX                                                                                                                                                                                                                                          |
|--------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| In-Box | Set<br>C/M/Y/K Toner(2.5K/2K)<br>Power cord<br>USB cable (China, Korea, HongKong, Malaysia, Thailand, Singapore, Russia)<br>Driver CD (Driver, Application, manual)<br>N/W CD (SyncThru, manual)<br>Quick installation Guide sheet<br>Warranty Card | Set<br>C/M/Y/K Toner(5.5K/5K)<br>Power cord<br>USB cable (China, Korea, HongKong, Malaysia, Thailand, Singapore, Russia)<br>Driver CD (Driver, Application, manual)<br>N/W CD (SyncThru, manual)<br>Quick installation Guide sheet<br>Warranty Card |

### 2.1.2.13 Option

| ACCESSORIES                      | PART NUMBER                                                                                                                                                                                                                                                                                                                                            | IMAGE                                                                                |
|----------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|
| Memory module                    | <ul style="list-style-type: none"> <li>CLX-6200 Series               <ul style="list-style-type: none"> <li>CLP-MEM201 : 128MB</li> <li>CLP-MEM202 : 256MB</li> </ul> </li> <li>CLX-6240 Series               <ul style="list-style-type: none"> <li>CLP-MEM101 : 128MB</li> <li>CLP-MEM102 : 256MB</li> <li>CLP-MEM103 : 512MB</li> </ul> </li> </ul> |    |
| Optional tray 2                  | CLX-S6240A<br>( 500 Sheet )                                                                                                                                                                                                                                                                                                                            |   |
| IEEE 802.11b/g Wireless LAN card | ML-NWA10L<br>- 6210FX, 6240FX Only<br>- 6200FX, 6200ND : N/A                                                                                                                                                                                                                                                                                           |  |
| Hard Disk (HDD)                  | ML-HDK410 (80 GB)<br>- 6200ND/6210FX : User Option<br>- 6240FX : Built-in<br>- 6200FX : N/A                                                                                                                                                                                                                                                            |  |

## 2.1.3 Competitor Model

### ■ SEC Model

|                  | CLX-6200ND                                                                        | CLX-6200FX                                                                        | CLX-6210FX                                                                         | CLX-6240FX                                                                          |
|------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Image            |  |  |  |  |
| Printing Speed   | 20/20 ppm                                                                         | 20/20 ppm                                                                         | 20/20 ppm                                                                          | 24/24 ppm                                                                           |
| Resolution(dpi)  | 2,400 x 600 dpi effective output                                                  | 2,400 x 600 dpi effective output                                                  | 2,400 x 600 dpi effective output                                                   | 2,400 x 600 dpi effective output                                                    |
| DuplexStd        | Std                                                                               | Std                                                                               | Std                                                                                |                                                                                     |
| ADF50 shts(DADF) | 50 shts(ADF)                                                                      | 50 shts(DADF)                                                                     | 50 shts(DADF)                                                                      |                                                                                     |
| Processor        | 360 Mhz                                                                           | 360 Mhz                                                                           | 360 Mhz                                                                            | 533Mhz                                                                              |
| RAM              | 128MB/384MB                                                                       | 128MB/384MB                                                                       | 128MB/384MB                                                                        | 256MB/768MB                                                                         |
| HDD              | 80GB opt.                                                                         | N/A                                                                               | 80GB opt.                                                                          | 80GB                                                                                |
| Language         | PCL/PS                                                                            | PCL/PS                                                                            | PCL/PS                                                                             | PCL/PS                                                                              |
| Scan System      | CCD                                                                               | CCD                                                                               | CCD                                                                                | CCD                                                                                 |
| Copy speed       | 20/20ppm                                                                          | 20/20ppm                                                                          | 20/20ppm                                                                           | 24/24ppm                                                                            |
| Paper tray       | 250sheets                                                                         | 250sheets                                                                         | 250sheets                                                                          | 250sheets                                                                           |
| MP tray          | 100sheets                                                                         | 100sheets                                                                         | 100sheets                                                                          | 100sheets                                                                           |
| Toner(B/C)       | Std:2.5K/2K<br>High:5.5K/5K                                                       | Std:2.5K/2K<br>High:5.5K/5K                                                       | Std:2.5K/2K<br>High:5.5K/5K                                                        | 5.5K/5K                                                                             |
| Wireless         | N/A                                                                               | N/A                                                                               | Opt.                                                                               | Opt.                                                                                |

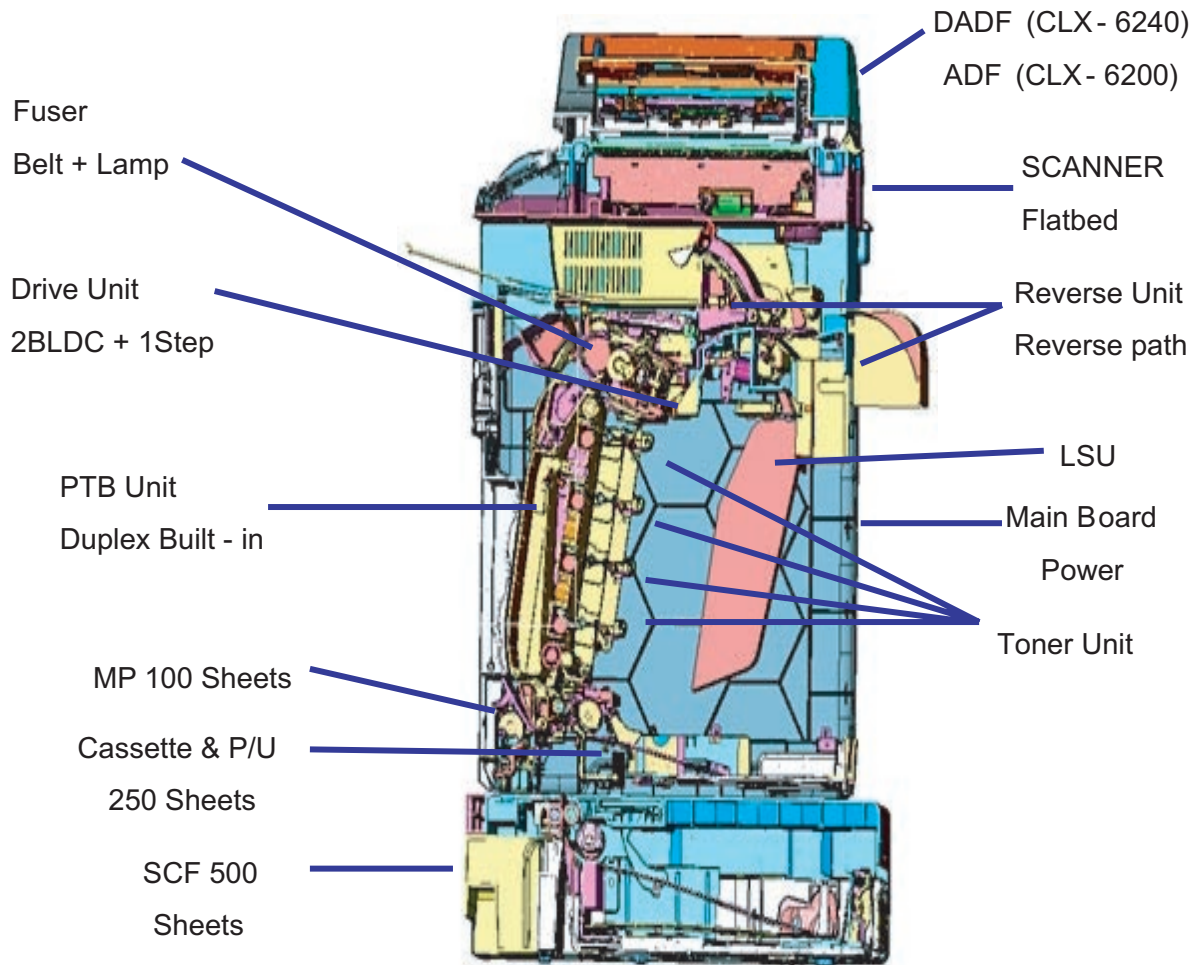
## Competitor Model

|                      | Samsung<br>CLX-6240FX                                                             | Brother<br>MFC 9440CN                                                             | Xerox<br>C2424                                                                     | DELL<br>3115cn                                                                      |
|----------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Image                |  |  |  |  |
| Printing Speed(B/C)) | 24/24 ppm                                                                         | 20/20 ppm                                                                         | 24/24 ppm                                                                          | 31/17 ppm                                                                           |
| DuplexStd            | N/A                                                                               | Std                                                                               | Optional                                                                           |                                                                                     |
| ADF50 shts(DADF)     | 35 shts(ADF)                                                                      | 50 shts(DADF)                                                                     | 50 shts(ADF)                                                                       |                                                                                     |
| Processor            | 533Mhz                                                                            | 300Mhz                                                                            | 500Mhz                                                                             | 400Mhz                                                                              |
| RAM256MB/768MB       | 64MB/576MB                                                                        | 256MB                                                                             | 256MB/1152MB                                                                       |                                                                                     |
| HDD80GB              | N/A                                                                               | 40GB                                                                              | N/A                                                                                |                                                                                     |
| Resolution (dpi)     | 2400x600                                                                          | 2400x600                                                                          | 2400 FinePoint                                                                     | 2400x600                                                                            |
| Language             | PCL/PS                                                                            | PCL/PS                                                                            | PDL                                                                                | PCL/PS                                                                              |
| Scan System          | CCD                                                                               | CIS                                                                               | CCD                                                                                | CCD                                                                                 |
| Copy speed           | 24/24ppm                                                                          | 16/16 ppm                                                                         | 24/24 ppm                                                                          | 31/17 ppm                                                                           |
| Paper tray           | 250sheets                                                                         | 250sheets                                                                         | 250sheets                                                                          | 250sheets                                                                           |
| MP tray              | 100sheets                                                                         | 50sheets                                                                          |                                                                                    | 150sheets                                                                           |
| Toner(B/C)           | 5.5K/5K                                                                           | Std:2.5K/2K<br>High:5K/4K                                                         | 6.8K/3.4K                                                                          | Std:5K/4K<br>High:8K8K                                                              |
| Wireless             | Optional                                                                          | N/A                                                                               |                                                                                    | Optional                                                                            |

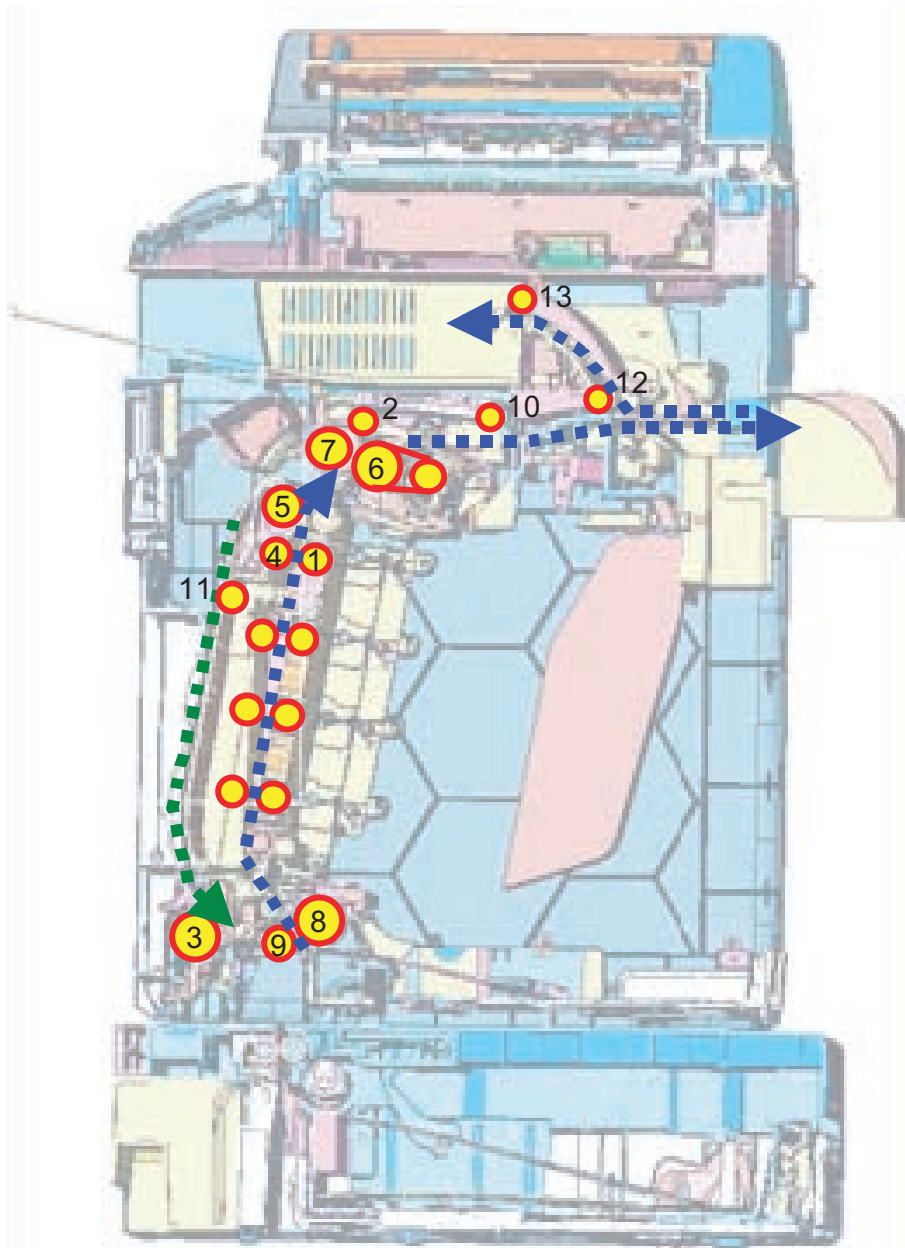
|                     | Samsung<br>CLX -6200FX                                                            | Brother<br>MFC 9420CN                                                             | HP<br>2840                                                                         | OKI<br>C5510N                                                                       |
|---------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Image               |  |  |  |  |
| Printing speed      | 20/20 ppm                                                                         | 31/7 ppm                                                                          | 19/4 ppm                                                                           | 20/12 ppm                                                                           |
| Processor           | 300MHz                                                                            | -                                                                                 | 264MHz                                                                             | -                                                                                   |
| RAM                 | 128MB                                                                             | 64MB                                                                              | 96MB                                                                               | 96MB                                                                                |
| MAX Memory          | 640MB                                                                             | 576MB                                                                             | 224MB                                                                              | 224MB                                                                               |
| Hard disk           | 80GB (Optional)                                                                   | N/A                                                                               | N/A                                                                                | N/A                                                                                 |
| Print Resolution    | 2400 effective output                                                             | 2400 x 600                                                                        | 2400 Image Ret                                                                     | 2400 x 600                                                                          |
| FPOT (Color/Mono)   | 20/20 sec                                                                         | 20/14 sec                                                                         | 29/18 sec                                                                          | -                                                                                   |
| Print Language      | SPL-C, PCL6, PS3                                                                  | PDL                                                                               | PDL                                                                                | GDI                                                                                 |
| Copy speed (Color)  | 20/20 ppm                                                                         | 31/8 ppm                                                                          | 19/4 ppm                                                                           | 20/12 ppm                                                                           |
| ADF                 | 50 shts (ADF)                                                                     | 35 shts (ADF)                                                                     | 50 shts (ADF)                                                                      | 50 shts (ADF)                                                                       |
| Input               | 250 CST, 100 MP                                                                   | 250 CST                                                                           | 250 CST, 125MP                                                                     | 300 CST, 100MP                                                                      |
| Duplex              | Std                                                                               | Manual                                                                            | Manual                                                                             | -                                                                                   |
| Toner (Black/Color) | 5.5 K/5K                                                                          | 10K/6.6K                                                                          | 5 K/4K                                                                             | 5K/5K, 3K/3K                                                                        |
| Interface           | USB 2.0, N/W                                                                      | USB 2.0, N/W                                                                      | USB 2.0, N/W                                                                       | USB 2.0, N/W                                                                        |
| Fax                 | Yes                                                                               | Yes                                                                               | Yes                                                                                | -                                                                                   |

## 2.2 System Overview

### ■ Product Configuration



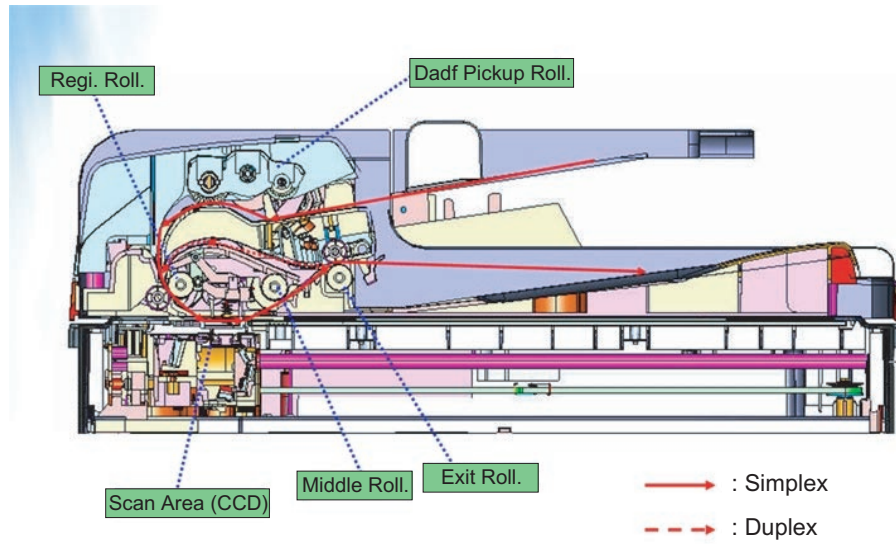
## ■ Engine Layout



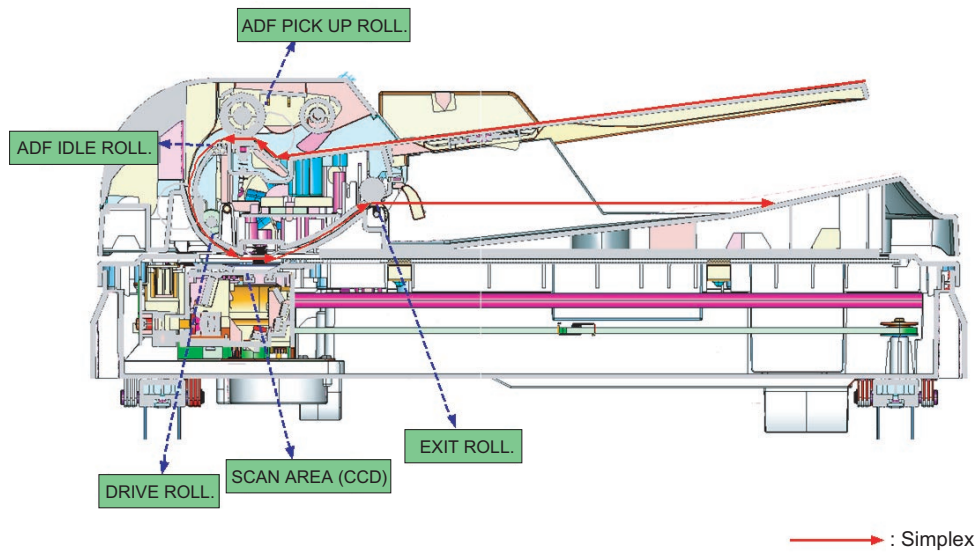
|   |                 |    |                       |
|---|-----------------|----|-----------------------|
| 1 | OPC             | 8  | Pick-up Roller        |
| 2 | Charge Roller   | 9  | Regi Roller           |
| 3 | MP Roller       | 10 | Exit Roller           |
| 4 | Deve Roller     | 11 | Duplex Roller         |
| 5 | Transfer Roller | 12 | Reverse middle Roller |
| 6 | Heat Roller     | 13 | Reverse Exit Roller   |
| 7 | Pressure Roller |    |                       |

## ■ DADF/ADF

[ DADF ]



[ ADF ]



## 2.2.1 Main parts of system

### 1) PTB Unit (Paper Transfer Belt)

PTB stands for Image Transfer Belt. An image developed on the Toner Cartridge is transferred first to the PTB. This is called the T1 Transfer Paper Charge Roller.

Images are built up in layers on the PTB.

First the Yellow (Y) color image is created on the Toner Cartridge and transferred to the PTB.

Next the Magenta (M) color image is created on the Toner Cartridge and transferred to the PTB.

Followed by the Cyan (C) and Black (K) images.



## 2) Transfer Roller

Once the complete, full color, image, has been built up on the PTB the Transfer Roller is used to transfer the image on to paper.

## 3) FCT (First Cassette Tray)

It stores and automatically feeds print paper.

Pick-up Roller picks up paper, controls drive, feeds paper, removes static electricity, and so on.

### > Spec.

- \* Feeding Method : Cassette Type
- \* Feeding Standard : Center Loading
- \* Feeding Capacity : Cassette 250 Sheets  
(75g/ m<sup>2</sup> , 20lb Paper Standard) Manual Feeder
- \* Paper Detecting Sensor : Photo Sensor  
(Empty, Registration, Exit)
- \* Paper Size Sensor : None

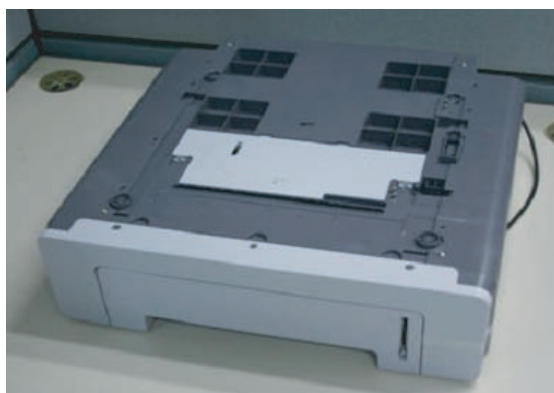


## 4) SCT (Second Cassette Tray)

This additionally stores and automatically feeds printing paper. Its function is the same as the FCT (First Cassette Tray)

### > Spec.

- \* Paper Direction : FISO (Front-in, Side-Out)
- \* Cassette Type : A4, Ltr
- \* Paper Discharge : Separation Claw
- \* Capacity : 500 Sheets (Standard paper 75mg/m<sup>2</sup> 20lb)
- \* Paper Size : A4, Letter
- \* Paper Weight (average) : 60~90g/ m<sup>2</sup> (16~24lbs)
- \* Paper Type : General Printing Paper
- \* Additional Function : Paper Empty Sensor  
Paper Registration Sensor  
Paper Exit Sensor



## 5) MPT (Multi Purpose Tray)

The Multi-Purpose Tray not only feeds general printing paper but is also used for many other kinds of paper such as those paper sizes not supported by the cassette, envelopes, etc.

### > Spec.

- \* Capacity : Cut Sheet : 100 Sheets (Standard paper 75mg/m2 bond)
- \* OHP : 300 Sheets
- \* Envelope & Label & Card Stock : 10 Sheets
- \* Paper Arrangement : Center Loading
- \* Power : Main Motor (Stepper Motor)
- \* Driving Management : Solenoid
- \* Paper Discharge : Friction Pad Method
- \* Paper Size : Legal, Folio, A4, Letter, Executive, JIS B5, A5, A6
- \* Paper Weight (Average) : 75~163g/m2 bond(20 to 43lb)
- \* Paper Type : General, Label, Post Card, Transparency, Envelope, Card Stock (Tracing Paper is not served)
- \* Additional Function : Paper Empty Sensor

## 6) Toner Cartridge

There are four toner cartridges, each containing a different color ink : C (Cyan), M (Magenta), Y (Yellow) , and K (Black).

Each one of these toner cartridge is independent and can be changed independently.

- \* Method of Toner supply : Toner is transported to the developing roller by supply belt.
- \* Regulating Toner level : Regulating Toner level by SUS.Blade.
- \* Developing method : Non-magnetic 1 element non-contracting mehtod.
- \* Toner : Non magnetic 1 element shatter type toner
- \* OPC cleaning : Collect the toner by using Cleaning Blade
- \* The life span of toner cartridge ; 5000(YMC)/5500(K) sheets (ISO/IEC 19798 standard pages)



## 7) Fuser Unit

This unit consists of IH-HEAT ROLLER, Thermostats and a Thermistor. It melts and fuses the toner, transferred by the transfer roller onto the paper, by applying pressure and high temperature to complete printing job.

- \* Heat Lamp : New Part - Dual Lamp Type (6200:Single lamp type)
- \* Fusing system : Belt fusing type
  - Heat roller : Pipe type (Lamp inside)
  - Pressure roller
  - Fuser roller
  - Belt
- \* Thermistor - Temperature-Measuring Device
- \* Thermostat - Critical Temperature-Detecting Device

### ① Thermostat

When a heat lamp is overheated, a Thermostat cuts off the main power to prevent over-heating.  
- Non-Contact type Thermostat

### ② Heat roller

The heat roller transfers the heat from the lamp to apply a heat on the paper. The surface of a heat roller is coated with Teflon, so toner does not stick to the surface.

### ③ Pressure roller

A pressure roller mounted under a heat roller is made of a silicon resin, and the surface also is coated with Teflon. When a paper passes between a heat roller and a pressure roller, toner adheres to the surface of a paper permanently.



## 8) LSU

LSU consists of LD(Laser Diode) and polygon motor control. When the controller generate the printing signal LD will turn on and Polygon motor starts. If the receiving part in LSU detect the beam and then Hsync is generated. When the rotation of polygon motor is steady, it is time of LSU ready status for printing. If either of two condition is not satisfied, LSU error is expected.

| Trouble             | Failure Analysis                                                                    |
|---------------------|-------------------------------------------------------------------------------------|
| Polygon Motor Error | No steady rotation of Polygon Motor                                                 |
| Hsync Error         | In spite of steady rotation of Polygon Motor, No the generation of the Hsync signal |



## 9) Main Drive Unit

This motor drives, by way of a gearbox, the Toner Cartridge, PTB unit, feeder unit, fuser unit.

### > Spec.

- \* Power : 20W Max (24V)
- \* Drives : Toner Cartridge, PTB unit, Fuser, Feeder

## 10) DEVE Drive Unit

This motor drives, by way of a gearbox, the toner cartridges and PTB cleaning cam.

### > Spec.

- \* Power : 20W Max (24V)
- \* Drives : DEV (4 Color)/PTB Cleaning)

### 11) SMPS (Switching Mode Power Supply)

This power supply uses the AC supply voltage to generate the DC voltages used by the system. The SMPS has 5 output channels (+3.3V, +5V, +24V).

### 12) HVPS (High Voltage Power Supply)

The HVPS creates the high voltages (Transfer, Charge, Attr, Supply DC, Supply AC) used for the electro photographic process. The high voltage is created from the 24V line from the SMPS. High Voltage output is supplied to the toner cartridge, PTB unit.

### 13) Main Controller PBA

The Main controller PBA is very important as it is the heart of printer. It has several major function blocks.

- \* CPU : This manages the printing order from the host, creates bitmap data for the engine to print and controls various devices that are needed to operate the printer.
- \* Engine Control Block: This manages images and controls various kinds of I/O
- \* Memory Block : The operating system uses this to store video data and printing orders given by host.
- \* ROM Block : The printer OS and PDL Interpreter are stored here.
- \* In addition there are USB 2.0 Block, IEEE 1284 Block, Option Block, OPE Panel, etc.

### 14) Drive PBA

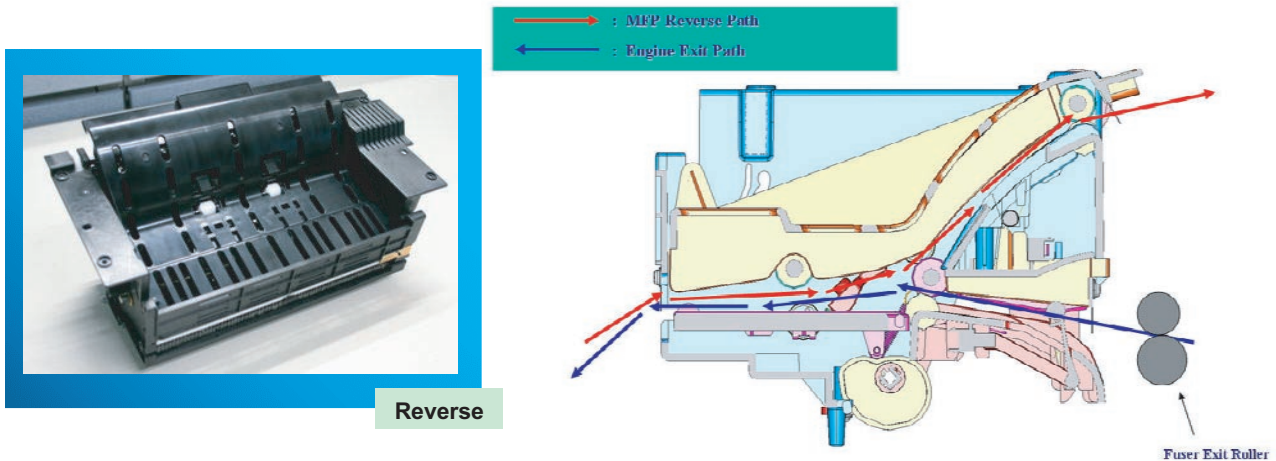
Each toner cartridge requires the HV Supply only when that colour image is being processed. This unit takes its HV source from the HVPS and using 4 solenoids selects which cartridge is to receive the Supply voltage. This section also contains the DEVE motor, DEVE clutch, and DEVE solenoid drives. These are activated in sequence as required by the printing process.

### 15) DEVE CRUM PBA

This detects new or used toner cartridges and also checks that cartridges are approved parts. If a toner cartridge is not suitable for the machine an error message is displayed.

## 16) Reverse Ass'y

- \* The life span : Print over 200k
- \* 1 Motor, 1 Solenoid



## 17) Scan Part



**1) Pictorial signal input part :** output signal of CCD passes through MP Cap change to AFE, and defined signal between AFE and Image Processor processes the Image signal. When AFE accept each pixel, CDS(Correlated Double Sampling ) technique which samples arm-level twice is used on each pixel by using IP signal.

**2) Pictorial image processing part :** read CCD Pixel data in terms of 600dpi Line and process Error Diffusion Algorithm on Text mode and Photo mode, and then store Data at Scan Buffer on PC Scan mode without algorithm.

On every mode Shading Correction and Gamma Correction are executed ahead, then processing is executed later.

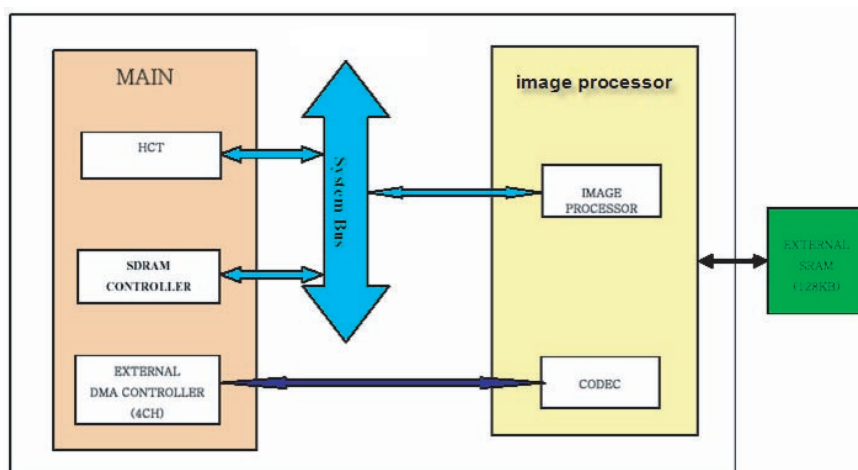
## \* Scan Image Control Specification

- ① Minimum Scan Line Time: 0.36ms for Copy.
- ② Scan Resolution : Max. 600DPI
- ③ Scan Width : 216mm
- ④ main function
  - Internal 12 bit ADC
  - White Shading Correction
  - Gamma Correction
  - CCD Interface
  - 256 Gray Scale

## 3) CCD Operating Part : CCD Image sensor use +5V and Inverter uses +24V

- CCD Maximum Operating Frequency : 12MHz
- CCD Line time : 0.36ms for Copy.
- White Data output Voltage :  $0.7V \pm 0.5V$  ( Copy, 0.36ms/line)
- Maximum Inverter Current : 600 mA Max.( +24V)

## ◆ IP Block Diagram

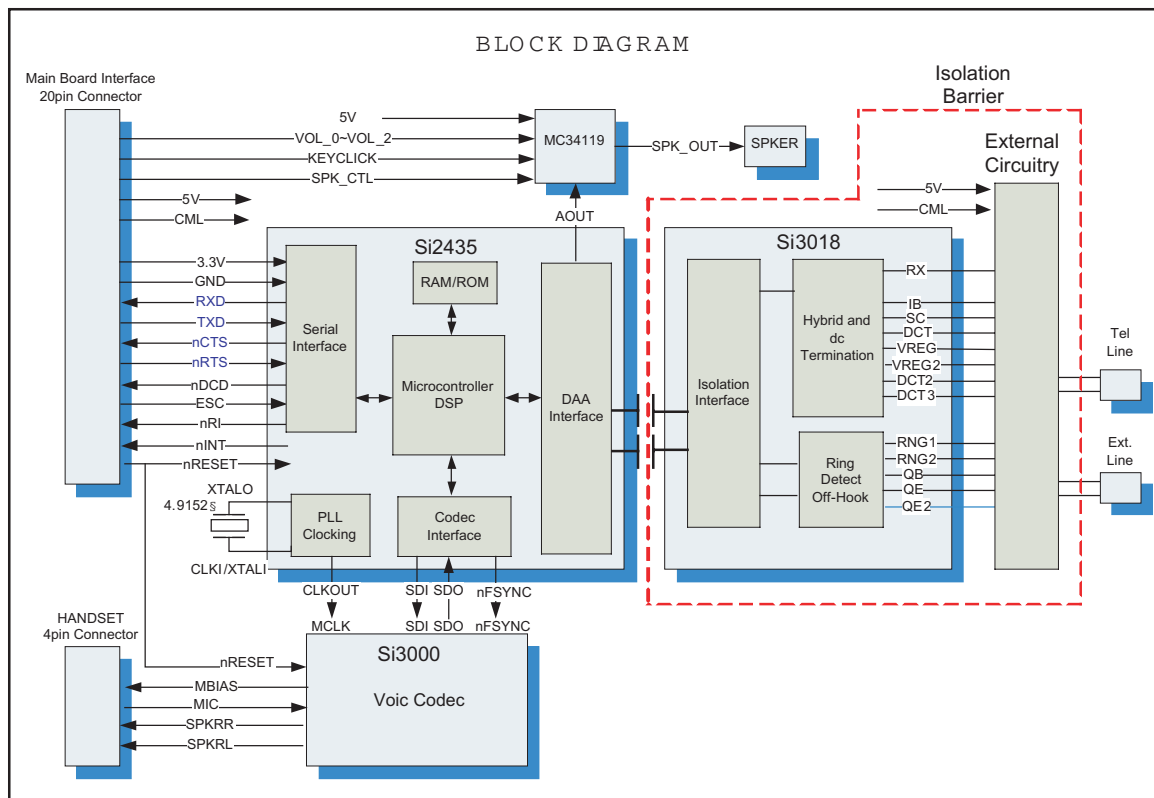


|                                 |                                                 |
|---------------------------------|-------------------------------------------------|
| 1) Scanning Device:             | Color CCD (Charge Coupled Device) Module        |
| 2) Supported Operating Systems: | Windows 98/2000/NT4.0/ME/XP, MAC (English only) |
| 3) Compatibility:               | TWAIN Standard                                  |
| 4) Maximum Scan Width:          | 216mm (8.5 inches)                              |
| 5) Effective Scan Width:        | 208mm (8.2 inches)                              |
| 6) Optical Resolution:          | 600x1200 dpi                                    |
| 7) Interpolated Resolution:     | Maximum 4800 dpi                                |
| 8) Preview Scan:                | 75 dpi                                          |

|                                                                                  |                                                                                                                                                    |                                                                                                                                                                                                      |
|----------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 9) Scan Modes/Speeds:(USB 2.0, 300dpi, Letter Size, Pentium4 2.xGHz, 128MB RAM ) | ADF & DADF                                                                                                                                         | <ul style="list-style-type: none"> <li>☞ Linearity : 15 sec. (Letter, 300dpi, USB)</li> <li>☞ Gray Scale : 20 sec. (Letter, 300dpi, USB)</li> <li>☞ Color : 30 sec. (Letter, 300dpi, USB)</li> </ul> |
|                                                                                  | Platen                                                                                                                                             | <ul style="list-style-type: none"> <li>☞ Linearity : 15 sec. (Letter, 300dpi, USB)</li> <li>☞ Gray Scale : 20 sec. (Letter, 300dpi, USB)</li> <li>☞ Color : 30 sec. (Letter, 300dpi, USB)</li> </ul> |
| 10) ADF & DADF Capacity:                                                         | 50 sheets (20 lb)                                                                                                                                  |                                                                                                                                                                                                      |
| 11) Image Compression:                                                           | None                                                                                                                                               |                                                                                                                                                                                                      |
| 12) PC Interface:(USB & Parallel are not simultaneously supported)               | USB (without HUB mode)Requires 6 ft. USB Cable (not supplied by SEC)                                                                               |                                                                                                                                                                                                      |
| 13) Minimum PC Specification:                                                    | Pentium-II 233MHz, 64MB RAM, 120MB free disk space                                                                                                 |                                                                                                                                                                                                      |
| 14) Registration Position for Original:                                          | <ul style="list-style-type: none"> <li>☞ Platen:Rear-Left Corner (when facing front/ operator panel).</li> <li>☞ ADF &amp; DADF: Center</li> </ul> |                                                                                                                                                                                                      |
| 15) Number of Copies:                                                            | 2 digits (99 maximum for LCD display and reports)                                                                                                  |                                                                                                                                                                                                      |

## 18) FAX section

### ◆ Block Diagram

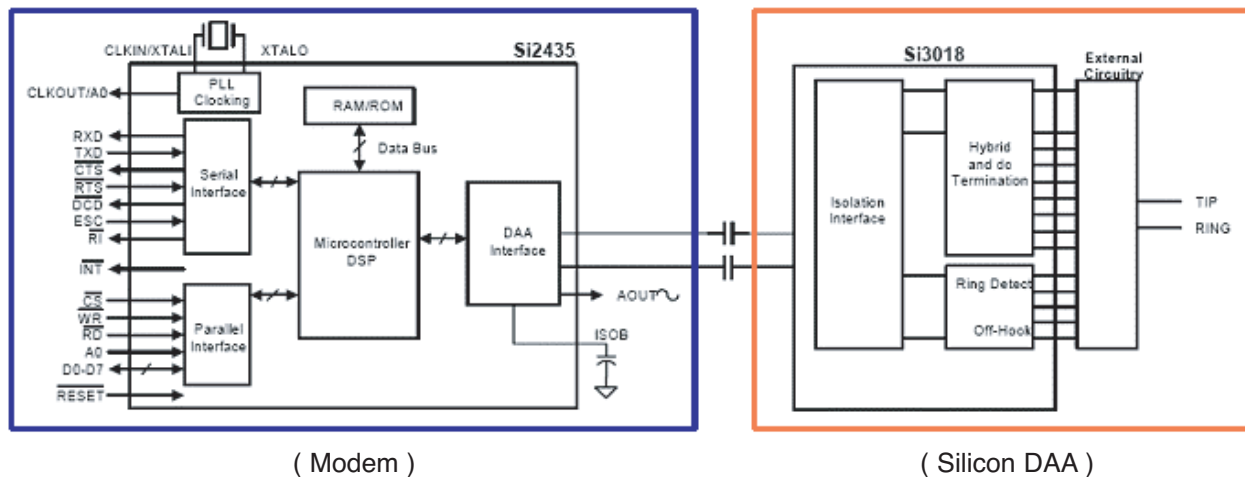


Implemented by based on the silicon DAA (Data Access Arrangement) Solution, and is roughly composed of two Chip Solution

- SI2435(SSD) A Modem Chip which embeds SSD (System Side Device) for interfacing between LSD and Voice Codec(SI3000)
- SI3018 (LSD) A LIU (Line Interface Unit) Chip which is controlled by SSD and satisfies each PSTN Requirements by modulating internal Configuration with connecting Tel Line.

#### ◆ Signal Transition of DAA Solution

Line Interface Signal of Tel Line and LSD is Analog Signal. There are a A/D and a D/A Converter in the LSD, so Analog Signal from Tel Line is converted in Digital through a A/D Converter in the DAA and transferred to the SSD by the DIB Transformer. Digital Signal from the SSD is converted to Analog by a D/A Converter in the DAA and transferred to Tel Line.



#### 1) Modem Side

The Si2435 modem device contains a controller, a DSP, program memory (ROM), data memory (RAM), a serial and parallel interface, a crystal oscillator, and an isolation capacitor interface.

The crystal oscillator circuit requires a 4.9152MHz fundamental mode parallel-resonant crystal. Typical crystals require a 20pF load capacitance. This load is calculated as the series combination of the capacitance. Frequency stability and accuracy are critically important to the performance of the modem. ITU-T specifications require less than 200ppm difference in the carrier frequency of two modems.

In the system there are two system interface options, serial and parallel. The serial interface allows the host processor to communicate with the modem controller through a UART driver. The system is adopted UART interface.

#### 2) DAA Side

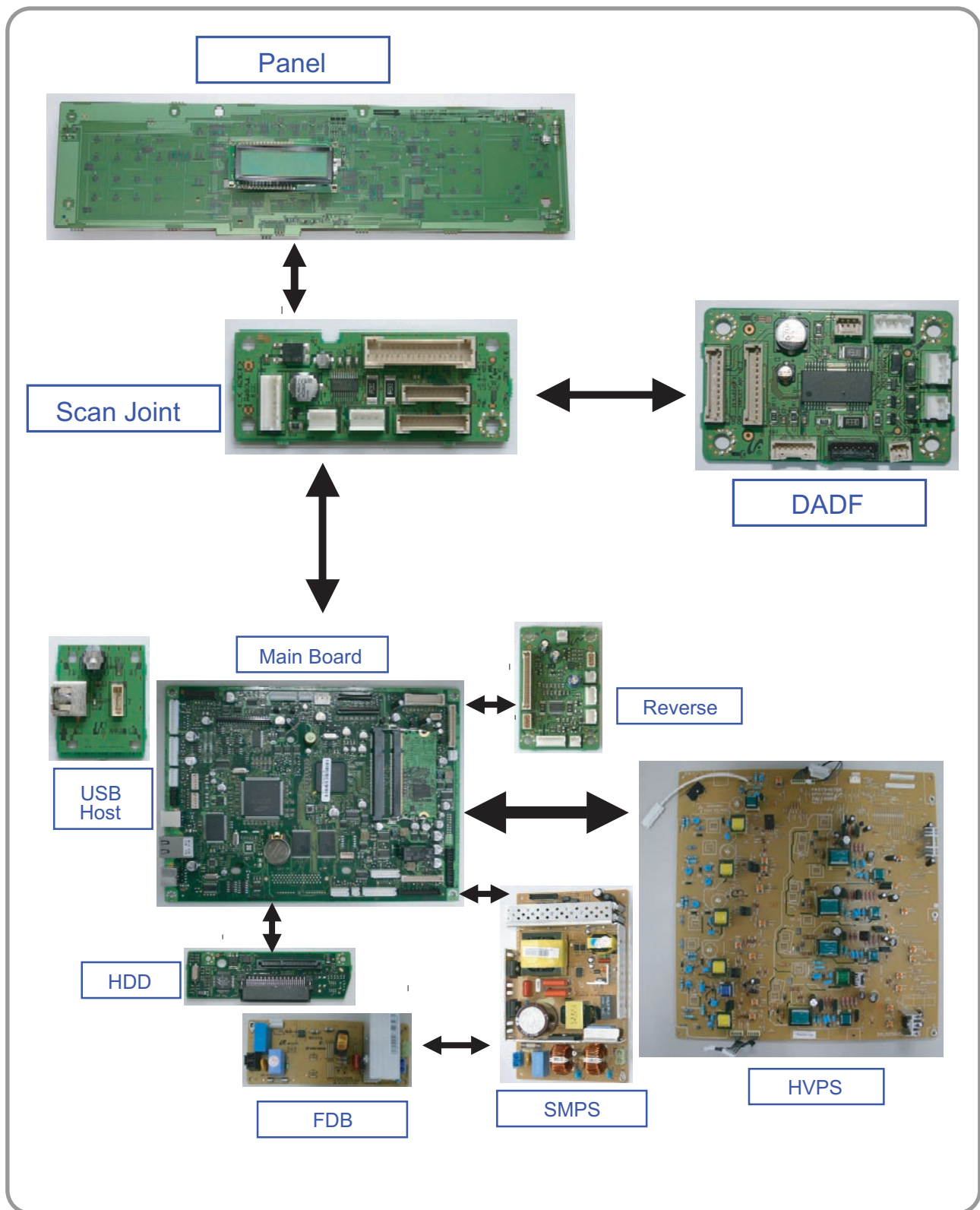
The Si3018, DAA or line-side device, contains an ADC, a DAC, control circuitry, and an isolation capacitor interface. The Si3018 and surrounding circuitry provide all functionality for telephone line interface requirement compliance including a full-wave bridge, hook switch, dc termination, ac termination, ring detect, loop voltage/current monitoring, and call progress monitoring.

### 3) Speaker Driver

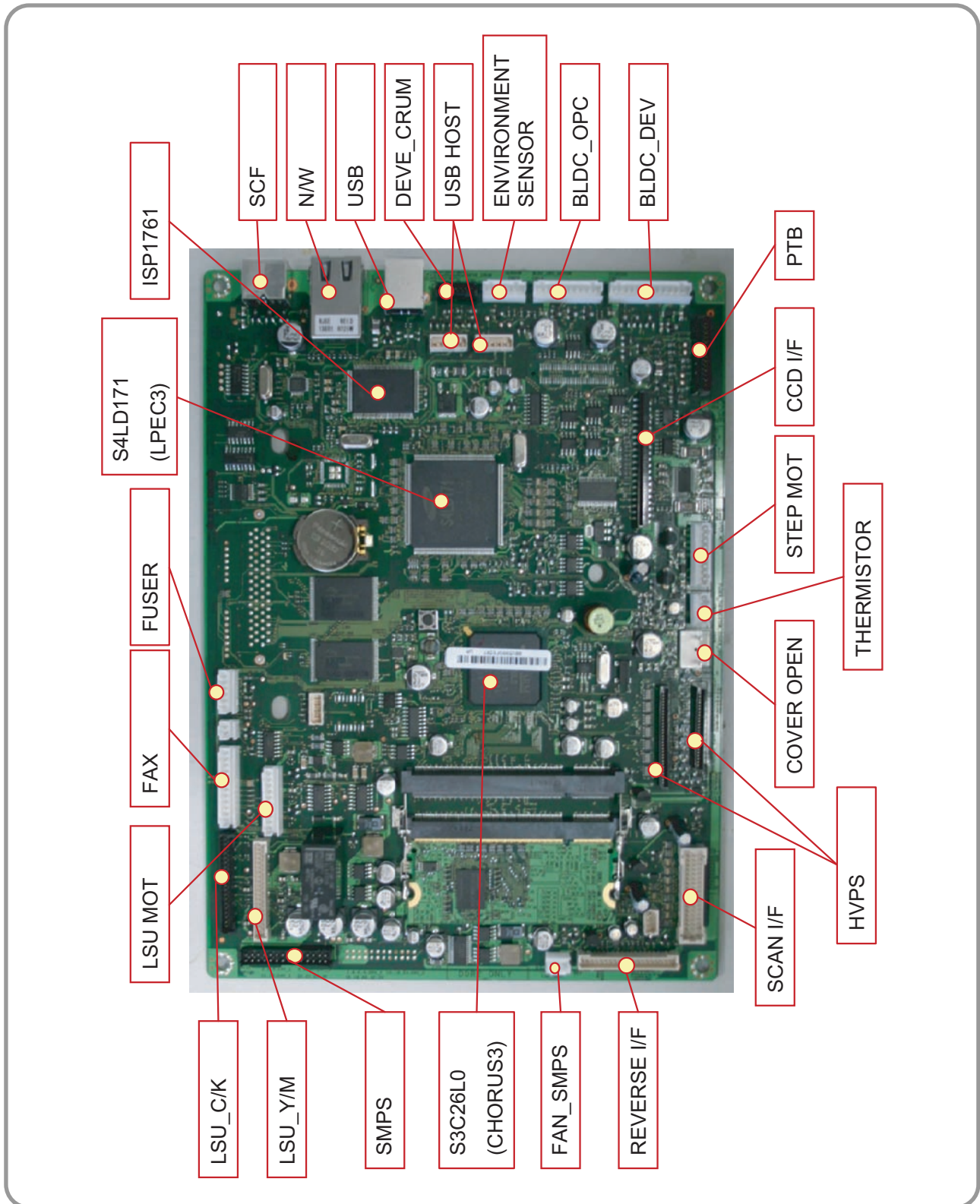
The AOUT signal from the Si2435 modem chip is only available in the serial DTE interface mode. AOUT is a 50% duty cycle, 32kHz, square wave pulse-width modulated (PWM) by voice band audio, such as call progress tones.

|                                 |                                                                                                                                                                                                                                                                                            |
|---------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Application Network             | PSTN (RJ-11)                                                                                                                                                                                                                                                                               |
| Communication Mode              | Half-Duplex, ITU V.8, V.34, V.17, V.29, V.21, V.27ter, ECMModem will auto train down only.                                                                                                                                                                                                 |
| Communication Standard          | ITU-T Group 3                                                                                                                                                                                                                                                                              |
| Max. Modem Speed                | 33.6 Kbps                                                                                                                                                                                                                                                                                  |
| Encoding                        | MH, MR, MMR, JPEG, JBIG                                                                                                                                                                                                                                                                    |
| Transfer Rate                   | 3 seconds (standard resolution, MMR, 33.6kbps, CCITT No.1, LTR)<br>Phase "C" by ITU-T No.1 Chart/Memory Transmission/ECM                                                                                                                                                                   |
| Fax Modes                       | Standard (203 x 98 dpi)<br>Fine (203 x 196 dpi)<br>Super Fine (300 x 300 dpi)                                                                                                                                                                                                              |
| Fax Contrast                    | Adjustable 3 levels (Light/Normal/Dark)                                                                                                                                                                                                                                                    |
| Fax Memory                      | 4MB (About 320 Sheets of CCITT No.1 Chart at standard resolution).<br>User selectable parameters will be stored in NVRAM.                                                                                                                                                                  |
| TX/RX Journal                   | Available.                                                                                                                                                                                                                                                                                 |
| Tel/ID List                     | Available.                                                                                                                                                                                                                                                                                 |
| Confirmation Reports for Send   | Upon successful transmission<br>Upon failure<br>Reduced image of first page (except OHD, and partial page for complexity of the images)<br>Customer On/Off selectable                                                                                                                      |
| Management Reports              | Configuration Report<br>Image TCR for Memory TX                                                                                                                                                                                                                                            |
| TTI/RTI:                        | TTI (Transmit Terminal Identification) printed at top of Fax Image.<br>RTI (Receiver Terminal Identification) printed at bottom of Fax Image the Transmitting devices fax number is substituted for receiving devices fax number is this footer.                                           |
| Line Control Unit (LIU)         | Input Sensitivity : Not programmable<br>Output Level : -9 to -15 dBm (programmable)<br>Cable Equalization : Not programmable<br>Input/Output Impedance: per PTT requirements (programmable)<br>DC Resistance: per PTT requirements (programmable)<br>Insulation Resistance: Minimum 5M ohm |
| Header Transmission (Always On) | Local Machine date and time<br>Local Machine ID<br>Local Machine Name<br>Transmit page count (3 digits)                                                                                                                                                                                    |

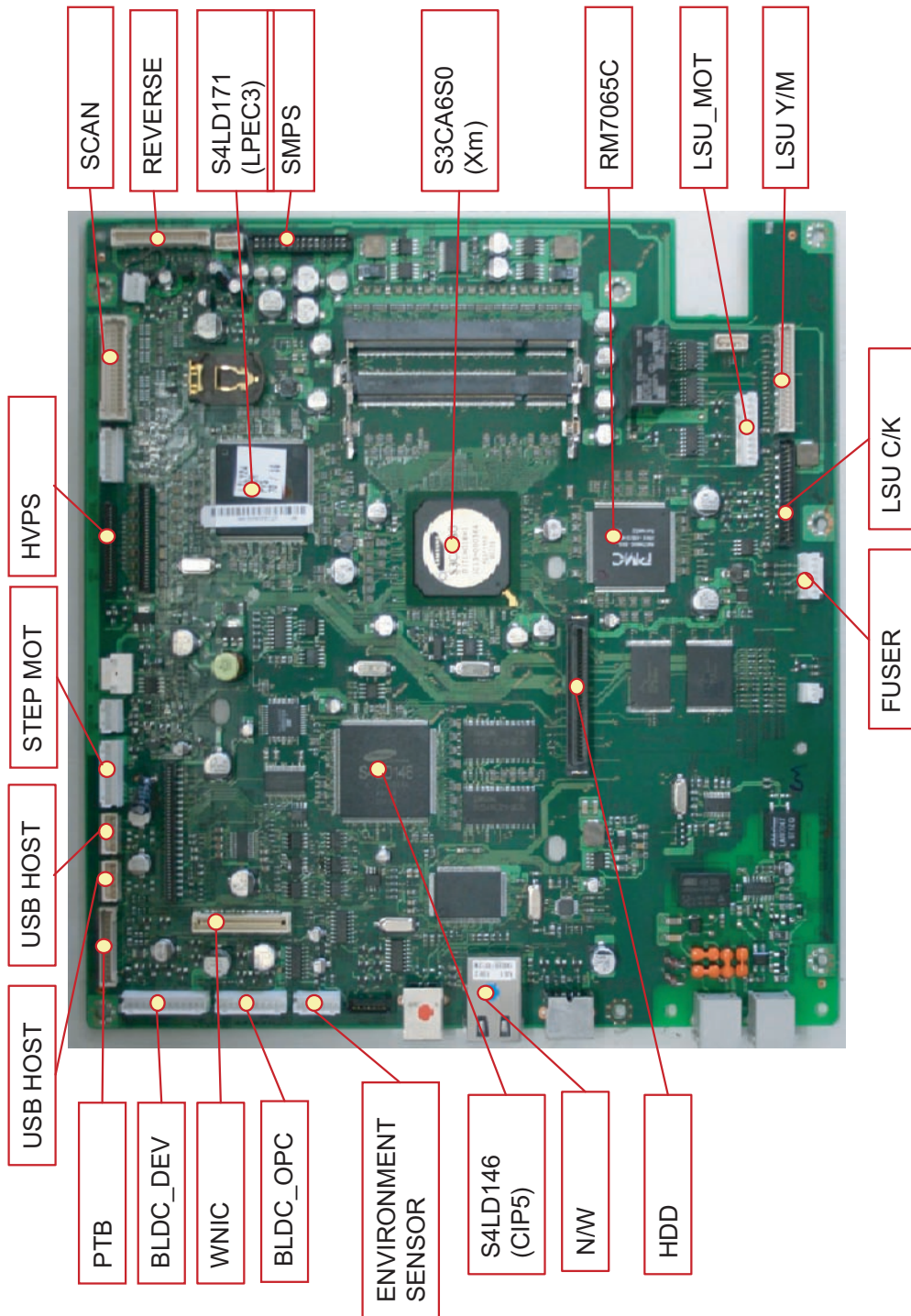
## 2.2.2 H/W Configuration



### 2.2.2.1 Main Board



**CLX-6200 Series Main B'D**



**CLX-6240FX Series Main B'D**

- CPU : CLX-6200 Series : Chorus3 (SoC)  
CLX-6240FX : Mips 7065C 533MHz + SPGPXm
- Memory :
  - RAM : CLX-6200 : DDR2 Default 128MB + Option 128/256MB  
CLX-6240 : DDR1 Default 256MB + Option 128/256/512MB
  - ROM : 16MB+8MB
  - EEPROM : 64kb
- Peripherals :
  - USB 2.0
  - 10/100 Based N/W (MII Interface Phy Chip Used)
- I/O :
  - Digital I/O Port : Basic I/O, PWM : Motor & HVPS Control
  - UART : Debug, FAX, OP
  - I2C : EEPROM & SDRAM & CRUM Interface
  - Analog I/O Port (ADC : Sensor Interface, DAC : LD Power Control)

### Chorus 3 Architecture (CLX-6200 Series)

- CPU Core : ARM9266EJS 360Mhz (I-Cache : 16KB, D-Cache : 16KB)
- SDRAM Controller : 4 bank DDR1 SDRAM and 4 & 8 bank DDR2 SDRAM  
(DDR2 2DIMM Used, 166MHz), 120Mhz System Bus
- ROM Controller : 2 Banks ( 1 Bank Used)
- I/O Controller : 4 Channel
- DMA Controller : 3 Channel
- HPVC : 4 Channel Dual / Single Beam
- UART : 4 Channels (Debug, OP, FAX 3 Channel used )
- Interrupt : 4 External, 64 Internal
- TIMER : 6 System Timer

### Mips + SPGPXm Architecture

- CPU : Mips IV 533Mhz (I-Cache : 16KB, D-Cache : 16KB, Secondary-Cache : 256KB)
- SDRAM Controller : 4 bank DDR1 SDRAM (2 DIMM Used) , 120Mhz System Bus
- ROM Controller : 4 Channel NOR, 1Channel NAND ( 1 Channel NOR Used)
- I/O Controller : 6 Channel

- DMA Controller : 4 Channel
- HPVC : 4 Channel Dual / Single Beam
- UART : 5 Channels (Debug, OP, FAX 3 Channel used)
- Interrupt : 10 External
- TIMER : 6 System Timer

## Memory Interface

- ROM :
  - Nor Flash : 16MB(Program ROM) + 8MB(Backup Memory)
  - Serial Flash : 4MB(6200 Series Only used for backup Memory)
  - Interface With Chorus 3/SPGPXm ROM Controller
- SDRAM :
  - Size : CLX-6200(DDR2) : Default 128MB (Option 128/256MB)
  - CLX-6240(DDR1) : Default 256MB (Option 128/256/512MB)
- EEPROM :
  - Size : 64kb
  - Interface With Chorus 3/SPGPXm I2C Controller
- CRUM :
  - Size : 256Byte
  - Interface With Chorus M I2C Controller via Deve Joint Board

## I/O Interface

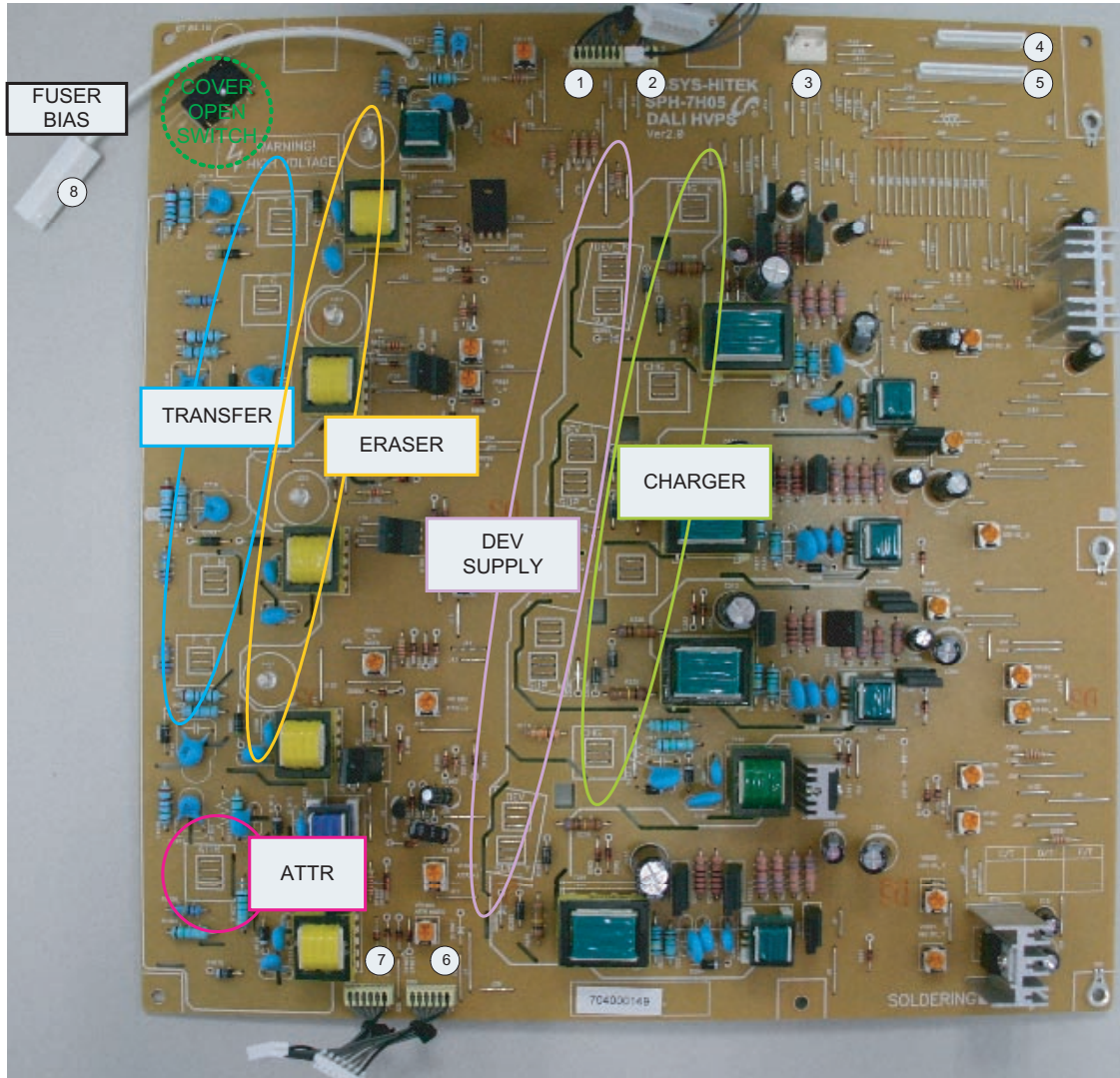
- High Speed USB 2.0 (High speed 480Mbps / Full speed 12Mbps)
- N/W Embedded
  - Chorus 3/SPGPXm With MII Interface
  - Active LED(Yellow) / Link LED(Green)
- PWM
  - High Voltage Control With Duty
  - Main Motor Clock
- I2C Interface
  - NVRAM (system information + network information)
  - CRUM

### 2.2.2.2 Power Flow

---

- SMPS
  - Type V (standard type)
  - +24V : For use Mechanical Part (Motor & Actuator (Solenoid, Clutch)), CCDM
  - +5V : Logic, Analog, Sensor
- Main B'D
  - Supply From SMPS +5V
  - Power Supply with Regulator (3.3V & 1.2V & 1.0V : Switching Regulator)
  - 3.3V : I/O Operating (Digital & Analog)
  - 1.0V : Chorus 3 Core Voltage
  - 1.2V : SPGPXm Core Voltage
- HVPS
  - High Voltage Source for EP Condition
  - Supply From SMPS +24V
  - Controlled By PWM Pulse & I/O

### 2.2.2.3 HVPS

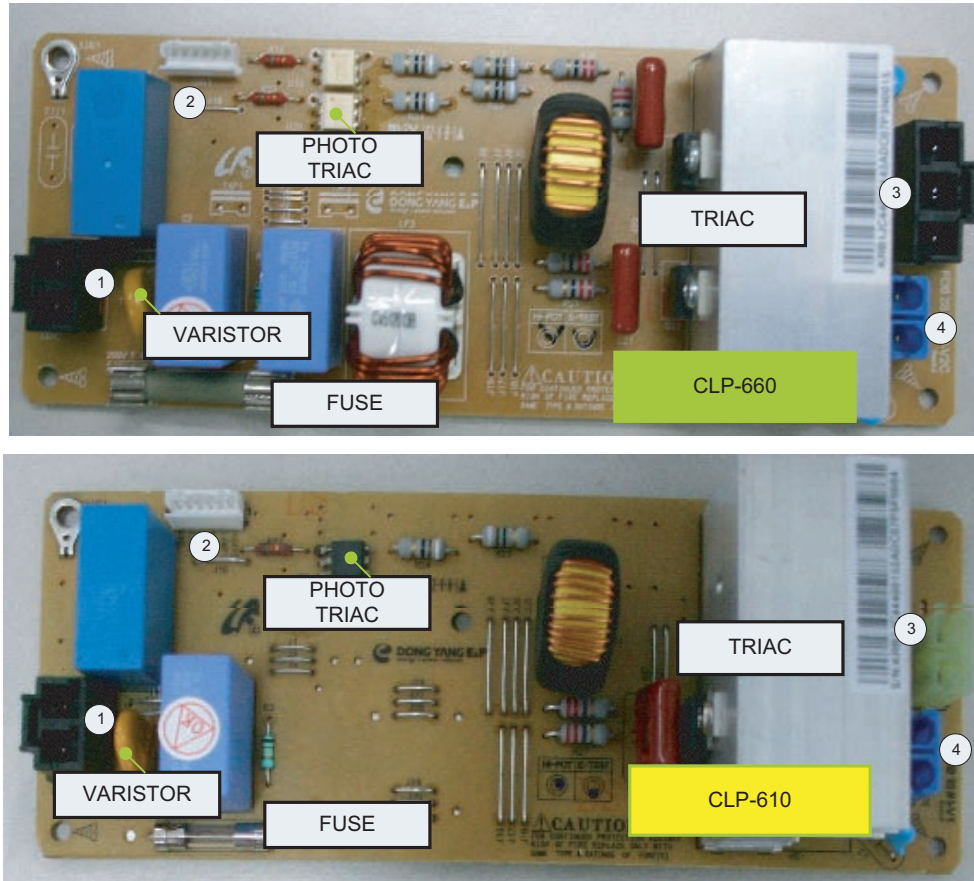


Charger : 1channel  
 DEV AC : 4channel  
 Supply DC : 4channel  
 ATTR+ : 1channel  
 ATTR- : 1channel  
 Transfer : 4channel  
 Fuser Bias : 1channel

|   |                                   |
|---|-----------------------------------|
| 1 | PANEL                             |
| 2 | EXIT SENSOR                       |
| 3 | 24V SWITCH                        |
| 4 | HVPS1(form mainboard)             |
| 5 | HVPS2(form mainboard)             |
| 6 | Feed, CST empty sensor            |
| 7 | MP solenoid, MP empty, CST detect |
| 8 | Fuser bias                        |

| Output             | Input Duty<br>(EDC mode display)                      | Output<br>Voltage/Current             | Load | Read<br>voltage<br>(ADC) | Tolerance |
|--------------------|-------------------------------------------------------|---------------------------------------|------|--------------------------|-----------|
| CHARGER<br>Y,M,C,K | 169(66%)                                              | -1170V                                | 200M | -                        | 3%        |
| SUP DC Y,M,C,K     | 100(39%)                                              | -295V                                 | 68pF | -                        | 3%        |
| DEVE AC Y,M,C,K    | AC freq2.6kHz<br>AC PWM 92(36%)<br>AC Vpp PWM 65(25%) | 174.0V<br>(about 1740V)<br>[ AC JIG ] | 68pF | -                        | 1.5%      |
| Transfer_Y,M,C,K   | 97(38%)                                               | 14uA                                  | 90M  | 1.7V (132)               | 3%        |
| ATTR               | 108(42%)                                              | 950V                                  | 100M | 0.6V (46)                | 3%        |
| ATTR[-]            | on                                                    | 350V                                  | 25M  | -                        | 15%       |
| Fuser Bias         | 128(50%)                                              | 300V                                  | 100M | -                        | 3%        |
| Eraser<br>Y,M,C,K  | 100(39%)                                              | on/off (18mA $\pm$ 3mA)               | -    | -                        |           |

### 2.2.2.4 Fuser Drive Board



#### CLP-660

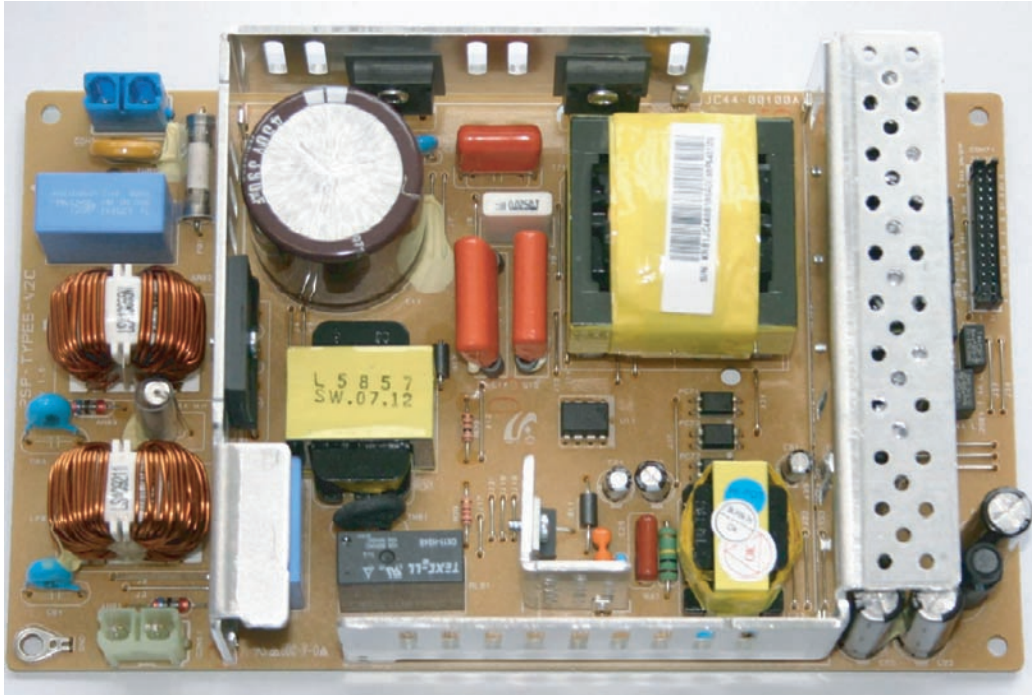
- Zero crossing signal detect
- 2 lamp (800W+500W) Phase control

#### CLP-610

- Zero crossing photo triac
- 1 lamp (800W) Pulse control

|   |                                 |
|---|---------------------------------|
| 1 | INLET AC                        |
| 2 | FUSER CONTROL (from Main board) |
| 3 | FUSER AC (to Fuser lamp)        |
| 4 | SMPS AC ( to SMPS)              |

### 2.2.2.5 SMPS



**SMPS : TYPE5**

**INPUT : V1-AC 110V, V2-220V**

**OUTPUT : 24V, 5V**

|   |                      |
|---|----------------------|
| 1 | AC from FDB          |
| 2 | NC (not used)        |
| 3 | 24V,5V to main board |

## ■ Input/Output connector

| DC Output connector (CN3) |            |                             |         |            |             |
|---------------------------|------------|-----------------------------|---------|------------|-------------|
| PIN No.                   | Pin Assign | Description                 | PIN No. | Pin Assign | Description |
| 1                         | +24V1      | Power                       | 2       | GND        | +24V Ground |
| 3                         | +24V1      | Power                       | 4       | +24V1      | Power       |
| 5                         | GND        | +24V Ground                 | 6       | GND        | +24V Ground |
| 7                         | +24V2      | Power                       | 8       | GND        | +24V Ground |
| 9                         | +24V2      | Power                       | 10      | +24V2      | Power       |
| 11                        | GND        | +24V Ground                 | 12      | GND        | +24V Ground |
| 13                        | +24V3      | Power                       | 14      | GND        | +24V Ground |
| 15                        | +24V3      | Power                       | 16      | GND        | +24V Ground |
| 17                        | GND        | +5V Ground                  | 18      | GND        | +5V Ground  |
| 19                        | +5V1       | Power                       | 20      | GND        | +5V Ground  |
| 21                        | +5V1       | Power                       | 22      | +5V1       | Power       |
| 23                        | GND        | +5V Ground                  | 24      | GND        | +5V Ground  |
| 25                        | +5V2       | Power                       | 26      | +5V2       | Power       |
| 27                        | Standby    | Signal<br>(power save mode) | 28      | GND        | Ground      |

| AC Input connector (CN1) |         |             |
|--------------------------|---------|-------------|
| Pin Assign               | PIN No. | Description |
| 1                        | AC_L    | AC Input    |
| 2                        | AC_N    |             |

| AC Input connector (CN1) |         |             |
|--------------------------|---------|-------------|
| Pin Assign               | PIN No. | Description |
| 1                        | AC_L    | AC Input    |
| 2                        | AC_N    |             |

## 2.2.2.6 CRUM Interface

